

# THE ADAPTIVE RE-USE OF PAINAM NAGAR

SUBMITTED AS A PARTIAL REQUIREMENT FOR THE  
DEGREE OF BACHELOR OF ARCHITECTURE

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## **ABSTRACT**

Painam Nagar is a set of fifty-two abandoned street-front houses once owned by rich Hindu merchant families. It is situated in Sonargaon, the ancient capital of Bengal during the Sultanate Period, at present day 17 miles east of Dhaka. Painam Nagar flourished in the late 19th and early 20th Century as it grew as a by-product of the trading and commercial activities of the British rulers. Most of the surviving houses were built during this period, but many hold evidence to have been built during the Mughal rule. However, today this strip of street is abandoned and deserted, much like a ghost town, yet somehow still flamboyantly expressing its grandeur and ambience of what it must have been in its hey-day. Even though the buildings are engulfed by vegetation and many crumpling away with time, one walk down the Painam Street is still capable of transporting its visitors back in time.

Today Painam Nagar stands as an idle asset. The site's convenient location amidst many historically important sites and other recreational facilities only adds to its potential. Painam Nagar is an ideal candidate for conservation, preservation or adaptive re-use. This site is important by all accounts; historically, culturally and architecturally. However, it remains rather isolated from its surroundings. But it cannot be denied that the socio-cultural scene of Bangladesh today is as much a part of Painam Nagar, as is its history. This paper discusses the approach chosen along with the justifications, for the conservation and management of Painam Nagar, all with the intention that Painam Nagar will continue to exist with the respect it deserves.

## **"PAINAM" NAGAR AND "PANAM" NAGAR**

The unique township of Painam Nagar in Sonargaon, Bangladesh is an urban settlement chiefly developed during the late 19th and early 20th Century. Although the name '*Panam*' appears more commonly used in recent articles, documents and by the locals, upon further investigation it was found that the term '*Panam*' did not appear until recent times.

'*Painam*' was used by W.W. Hunter in the 1875 Accounts of Dacca District. This was followed by Ali in 1990 publication on the conservation workshop held in Dhaka in April 1989 under the Aga Khan Trust for Culture and the Institute of Architects Bangladesh.

B.C. Allen in Karim and Asgar (1993) used the spelling '*Painam*' reference on a map of Dacca.

Gupta (2001) mentioned *Suvarnagram* (Sonargaon) was called '*Painam*'.

The spelling was '*Pannam*' was used in the 1969 Bangladesh District Gazetteers (Dacca, 1975).

The spelling was '*Panam*', in the revenue map of 1859-60 of the Directorate of Land Records.

Hussain, Rashid and others (1997) in *Sonargaon . Panam* (published by Asiatic Society of Bangladesh) used the spelling '*Panam*'.

The 2009 publication by UNESCO 'Old but New - New but Old: Architectural Heritage Conservation' by M. Rahman, the paper 'Twenty-Five Buildings - Frozen Museum of Painam Nagar' by Z.U. Shaikh and M. Rahman uses '*Painam*'.

This paper uses the spelling '*Painam*' as it seems to be more authentic based on the study of the documents found.

## **CHAPTER 01**

### **1.1 BACKGROUND OF THE PROJECT:**

Sonargaon, the ancient capital of Bengal, is an important historic site by all accounts. Sonargaon emerged as the administrative capital during the Independent Sultanate under the rule of Fakruddin Mubarak Shah around 1338 (Shaikh, Rahman, 2009). Today only little remains of this historically significant site. Panam Nagar, a strip of a street in Sonargaon, surviving yet today with 52 houses along a 5m wide and 600m long road. This street is probably the only place where such a large collection of historically significant structures can be found together. These structures speak of a history of more than 400 years old. (Shaikh, 2006)

As unsettling as it may sound, Painam Nagar was listed as a heritage site only in 2003, and the Department of Archaeology did not acquire all the buildings until 2006. Even more unfortunate is the fact that unqualified work by the Department of Archaeology of Bangladesh threatened its authentic conservation, character and preservation. Painam Nagar was listed in UNESCO's 100 endangered sites in 2006. (Shaikh, Rahman, 2009) Sonargaon itself, was placed in the 2008 Watch List of the "100 Most Endangered Sites" in 2008 by World Monuments Fund. (Evarts,2005)

## **1.2 PROJECT BRIEF:**

A building left abandoned can hardly be of much good, as being “abandoned” essentially means that they are mostly uncared for and are under the threat of vandalism, illegal occupation or destruction. Hence, the key intention of this project is a rather simple one: the adaptive re-use of buildings of Painam Nagar. “Adaptive re-use” refers to the process of re-using an old site or building for a purpose other than which it was designed or built for. It can be regarded as a compromise between historic preservation and demolition.

But in order to conceive such an intention, to establish an understanding of the project’s key question, “*What should Painam Nagar be?*” an extensive study and analysis of this historic site needs to be done by linking the past, the present and the future. For a project of this sort, it is essential to know the past to make sense of the present, in order to influence the future.

The necessity of a project like this is highly essential in Bangladesh’s context, as the rich architectural and cultural heritage of our country is struggling to continue its existence in the rapidly developing Bangladesh. Painam Nagar and Sonargaon, presently being part of the Dhaka Division and at a close vicinity to Narayanganj, is no different. Narayanganj’s and present-day Sonargaon area’s threatens to engulf this site. Many of the monuments mentioned in the documents of famous travelers such as Ralph Fitch, James Taylor and James Wise have already disappeared. It is time to protect the remaining ones.

This project will hence attempt in developing a suitable use for the historic buildings of Painam Nagar through the analytical derivation of what function would suit Painam Nagar the best, and how should that function be incorporated without damaging the buildings and also respecting this historic site.



### **1.3 PROJECT RATIONALE:**

Painam Nagar is probably one of its only kind of a heritage site in Bangladesh. In no other place of Bangladesh has such a large number of houses from a time period survived so well. None the less, the houses are now abandoned with restricted entry for the public and protected under the Department of Archaeology. But their abandonment and restriction does them little or no good. Even though the vandalism has decreased significantly, their state of disuse has led them to be uncared for, accumulating dirt, garbage, dampness and vegetation on the buildings. Upon conversation with the respective personnel, Engineer Md. Rafiq, in-charge on site, it was noted that the size and number of buildings itself is too large as compared to the number of personnel involved to take care and guard them. At present, there are only five people assigned as "caretakers" to the site and buildings, excluding the chief engineer.

Painam Nagar today is an idle asset. It could be appropriately re-used to house functions. Assigning functions to the buildings would achieve several benefits. A function would mean that there would be an administrative body responsible for the protection, security and maintenance of the buildings. Also, the revenue generated would contribute future maintenance of the buildings, ensuring their longevity.

It may be stated here that the location of Painam Nagar is rather fortunate and advantageous. It is situated at a close proximity to the Sonargaon Folk Art Museum (a 10 minute walking distance from the Painam Street). Also scattered all around the nearby area are many significant monuments from the Mughal and Sultanate Period (Fig 2b). In recent times, a large number of picnic spots has grown in the neighborhood, thus increasing the number of visitors to both the Folk Arts Museum and Painam Nagar.

It is obvious that the site has a multi-dimensional factors influencing its future. At present, it is significant in numerous ways such as cultural, historical, economical etc. The possible functions that Painam Nagar could incorporate today is discussed in detail in Chapter 6 of this document, following careful analysis of the site's history, present-day conditions, along with global and international approach to assets such as Painam Nagar.

#### **1.4 AIMS AND OBJECTIVES:**

This part discusses the current aims and objectives of the Government of Bangladesh for Painam Nagar. The project objectives are further discussed in Chapter 6 of this document following further analysis of Painam Nagar.

##### Government Proposal and Government's standpoint on Painam Nagar:

The Department of Archaeology of Bangladesh does not yet have any plans for Painam Nagar. Approximately 6 years ago, some initiatives were taken by the Archaeology Department to restore some of the buildings, but had to stop due to the public protests as the conservation methods being carried out were unskilled and threatened the authentic character and ambience of the site.

None the less, the proposal resulted in at least preventing heavy vehicles from entering the Panam Street. Only light vehicles such as rickshaws, bicycles and battery-operated small auto-rickshaws are allowed to enter the site. The Government's proposal, then still at its infancy, intended to cut off the street entirely of vehicles, leaving it only for pedestrians; an'd to revive the Pankhiraj Canal that surround the Painam Street on all sides except for the West, such that it becomes secluded as it once was. (Verbal accounts of Dr Abu Sayeed, 2014)

An addition made by the Government in recent times is a bridge that is slightly East of the Pankhiraj Bridge. The Pankhiraj Bridge, restored recently, is an important structure built during the Mughal times. This bridge does not support vehicles (except for bicycles) and is used only by the pedestrians. The newly added "nameless" bridge cuts off the view of the Pankhiraj Bridge from the rear of Panam Nagar's buildings, much to the disappointment of the visitors.

As stated in "Buildings of Painam Nagar" in *Old But New – New But Old*,

*"Though it had been felt that the Painam buildings should be listed as heritage, the Archaeology Department did not or could not acquire the properties until 2006. Various quarters including the Government got alarmed only in 2004 when two buildings collapsed; till then the Government had only three structures in the locality under its possession. The Department undertook a Tk 5 crore (US \$710,000) renovation/repair project. However, it started a piece-meal work without proper documentation and without following a Master Conservation Plan (MCP). It also ignored various recommendations of a Government Advisory Committee. The issue was raised and discussed in various forums and media in 2006 and 2007, where the authors played important roles. Eventually,*

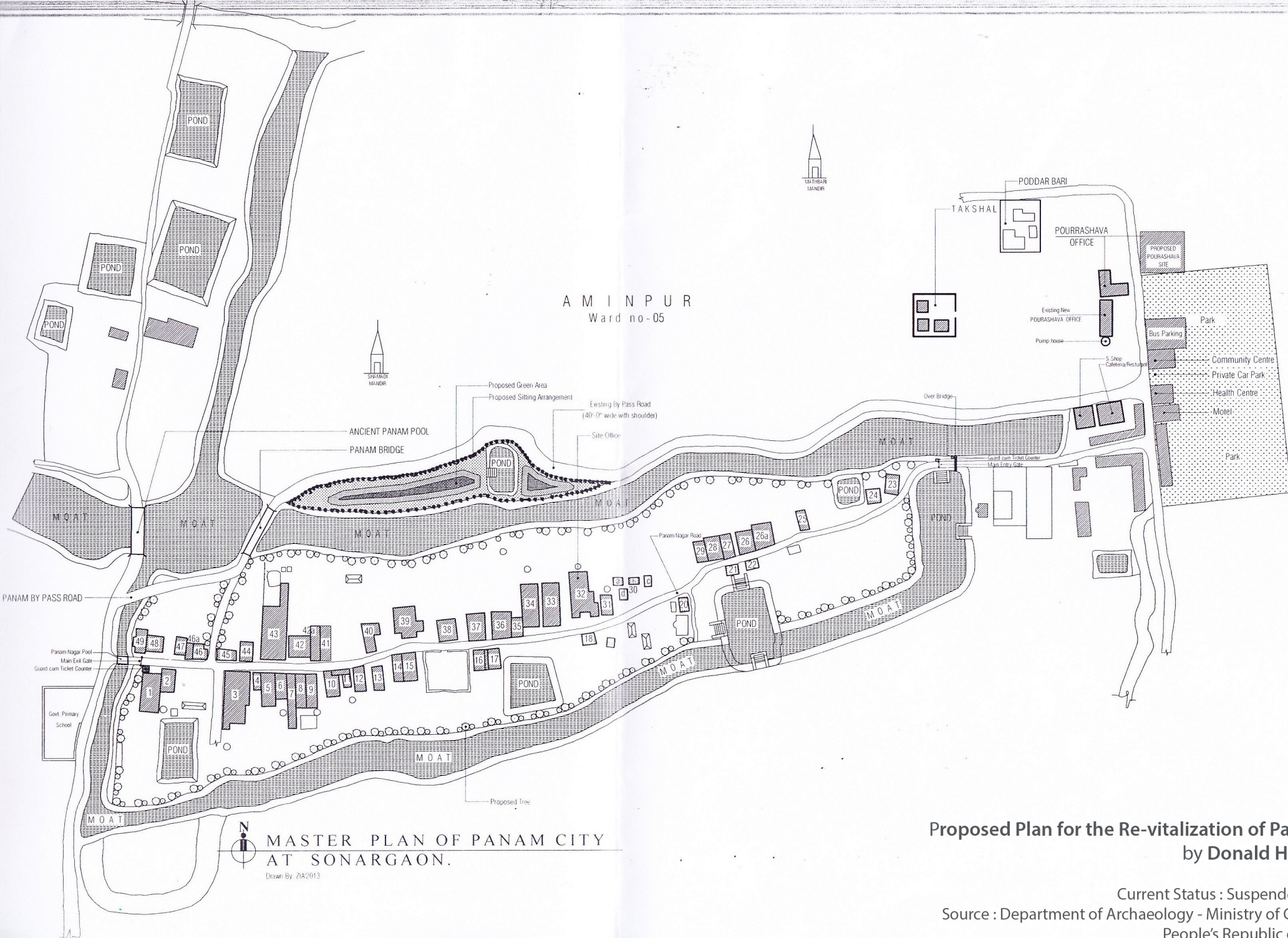
*since July 2007 all works in the site have been suspended till the completion of documentation and MCP.”*

(Z.U. Shaikh, M.Rahman, 2009)

Upon recent investigation and information as per the information provided by the Department of Archaeology, it was stated that in 2013 a British architect named Donald Husky visited Bangladesh and expressed an interest to design a Masterplan to revitalize the area. The project was intended to be carried out in 3 major phases: 1st to avail the Government land ("*Khaash Jomi*") around the site, the 2nd to establish a proper network for the site and surroundings and 3rd, to ensure a proper controlled entry and exit to the site. The project was abandoned as the architect later became discouraged during the political instability in Bangladesh at the end of 2013. There has been no further developments for the Painam City's restoration or conservation. Attached with this document is a the Proposed Masterplan for Panam City by Donald Husky.

(Source- Khandoker Mahfuz Alam, Architect at Department of Archaeology)





# MASTER PLAN OF PANAM CITY AT SONARGAON.

Drawn By: ZIA/2013

**Proposed Plan for the Re-vitalization of Panam Nagar  
by Donald Husky - 2013**

Current Status : Suspended / Unknown  
Source : Department of Archaeology - Ministry of Cultural Affairs  
People's Republic of Bangladesh

## **CHAPTER 2**

### **2.1 SITE APPRAISAL**

The site is a strip of a street situated 27 km to the South-East of Dhaka near Sonargaon. The street is approximately 600m long and 5m wide and is lined on both sides by a total of 49 houses. A narrow canal, the Pankhiraj Canal surrounds the site on all sides except on the West.

Given below is the calculated area of the site:

549, 651 square feet

= 763.4 Katha = 38 Bigha = 12.7 Acre (tentative)

(delineated in YELLOW on attached Google Map)

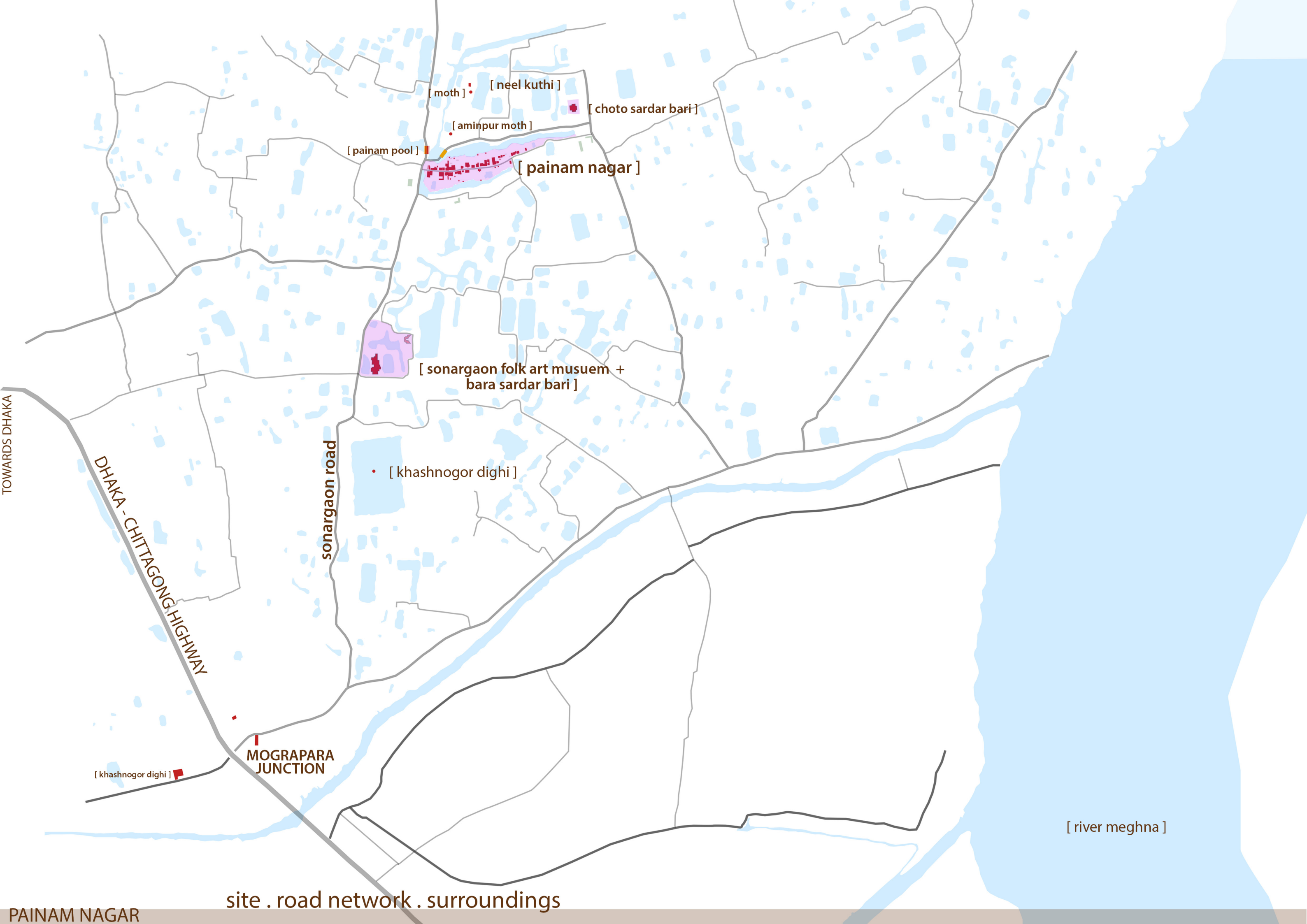
The site has several important structures around it. Please refer to the attached Maps.





Panam City, Sonargaon, Bangladesh





TOWARDS DHAKA

DHAKA - CHITTAGONG HIGHWAY

sonargaon road

MOGRAPARA JUNCTION

[ khashnigor dighi ]

[ khashnigor dighi ]

[ sonargaon folk art musuem +  
bara sardar bari ]

[ painam pool ]

[ moth ]

[ neel kuthi ]

[ choto sardar bari ]

[ aminpur moth ]

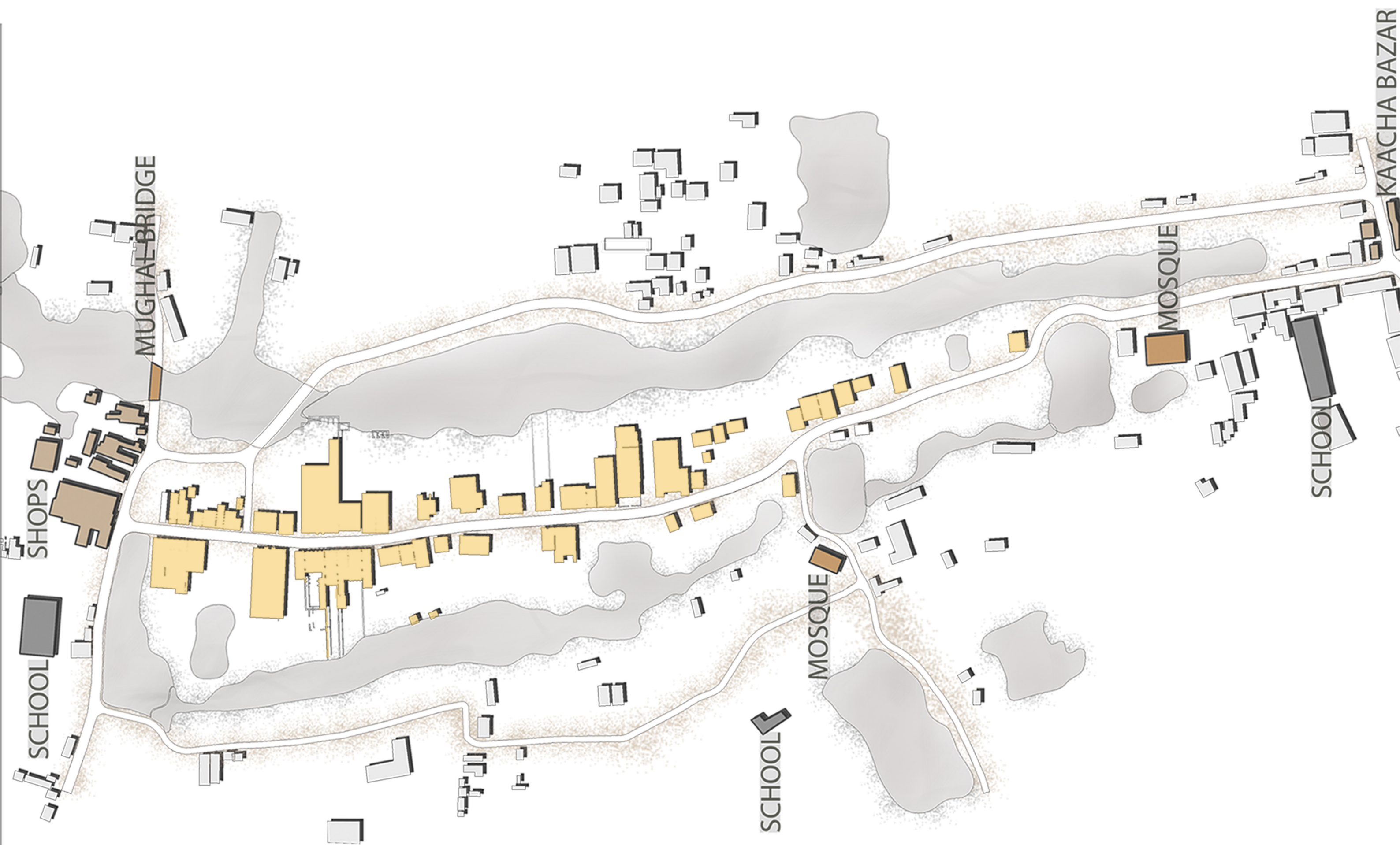
[ painam nagar ]

[ river meghna ]

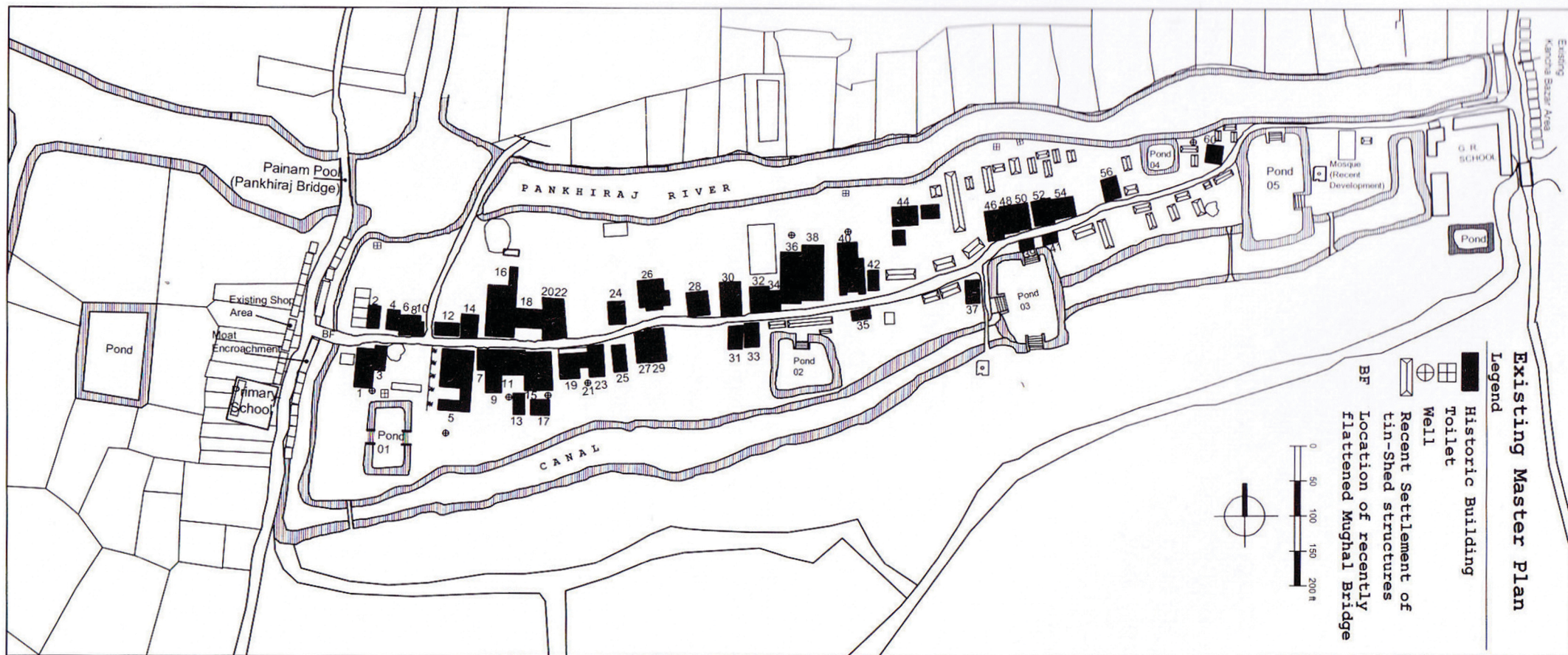
PAINAM NAGAR

site . road network . surroundings



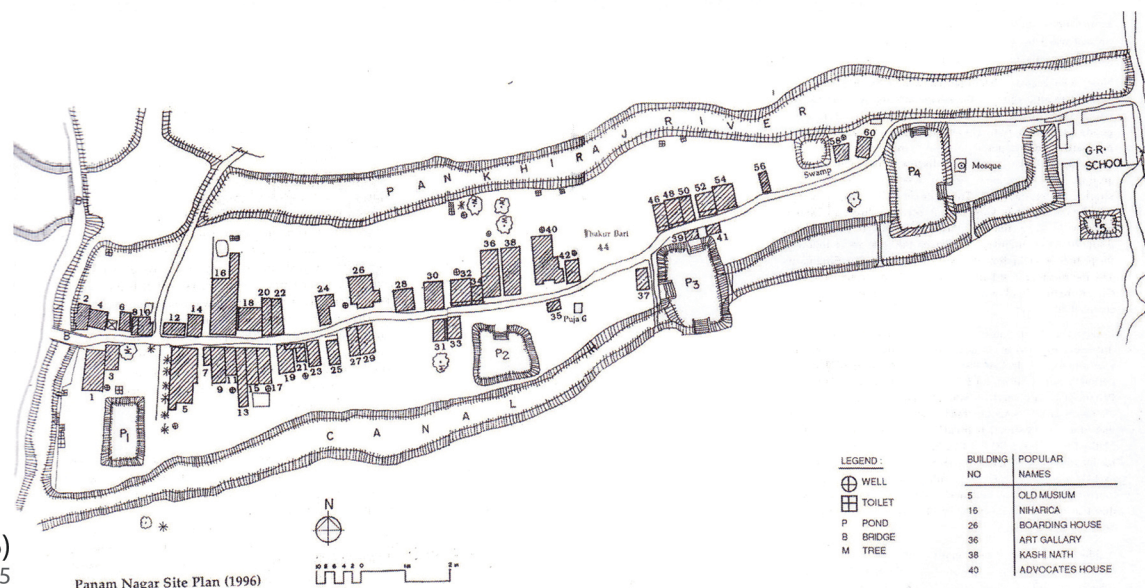






Survey Map (2006)

Source : 'Buildings of Painam Nagar'; in *Old But New, New But Old*. UNESCO pp-282

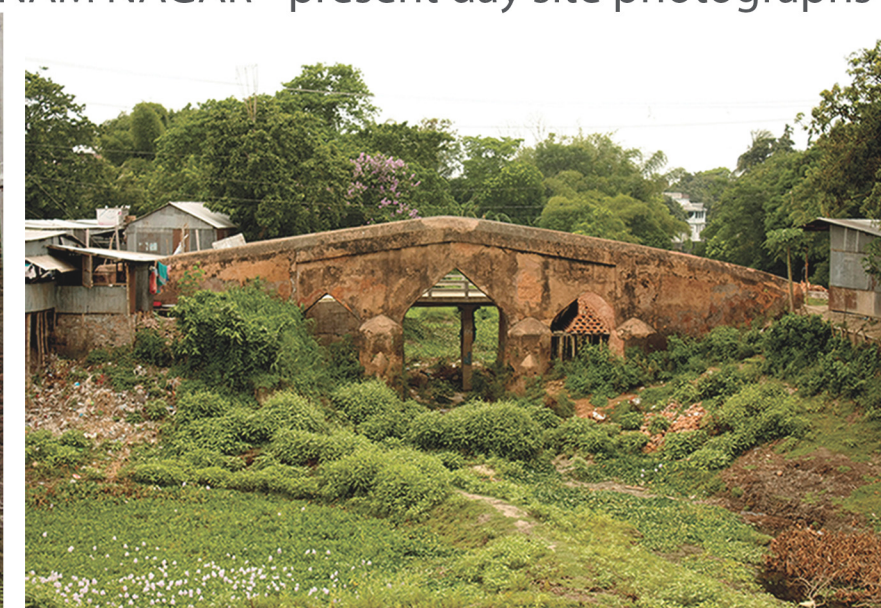
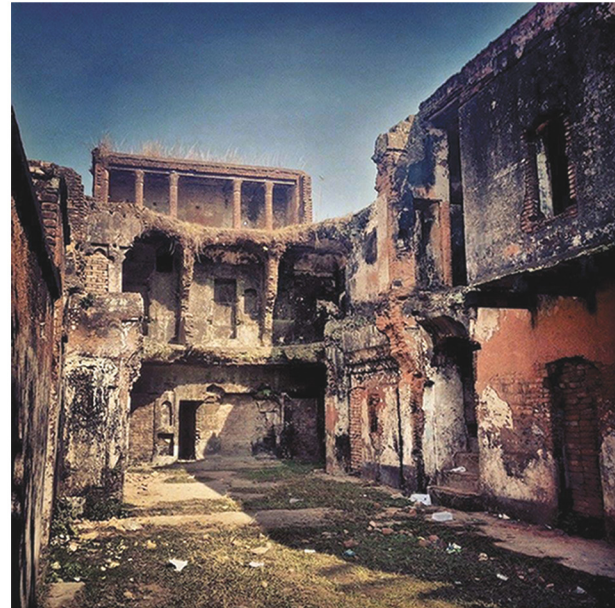


Survey Map (1996)

Source : *Cultural Survey of Bangladesh Series: Architecture*. Asiatic Society of Bangladesh. pp 385



PAINAM NAGAR - present day site photographs



source: british library website historic photographs



mughal bridge



Entrance to Panam Street- 1872



Painam Street - 1872



Neel Kuthi



Painam Bridge ( Dulapur Bridge )1872



## **2.2 HISTORIC AND SOCIAL BACKGROUND OF SONARGAON AND PAINAM NAGAR:**

### **2.2.1 SONARGAON AND PAINAM NAGAR: HISTORY, POLITICS AND COMMERCE:**

Sonargaon, originally known as "*Suvarnagrama*", literally meaning "land of gold" is an ancient *janapada* (territory) of Bengal on the confluence of River Bhramaputra and Meghna. (M. Hussain, 2009) The ancient territory of Sonargaon is believed to have been bounded by the Rivers Meghna on the East, Dhaleswari on the South and Sitalakhya on the West. However, historians have established that no conclusive evidences remain to determine the exact location or area of Sonargaon, thus it can only be assumed. (Hussain, 1904)

Sonargaon existed as an important settlement even before the pre-Muslim period from the time of the Senas and Devas between the 11th and 13th Century. It came into prominence under the Bengal Sultanate rule in the 12th Century. Even though it was a major city in the eastern region under the rule of Alauddin Khilji in 1299, it came into major prominence when it emerged as the capital of the Independent Sultanate of Bengal under Fakhruddin Mubarak Shah (1338-1449). This is considered to have been a glorious period for Sonargaon. When Bengal fell under the rule of the Mughals, Dhaka was chosen as the capital in 1608 and shifted in 1611 from Sonargaon for defensive and administrative purposes during the Mughal Emperor Akbar's (1542-1605) reign.

Even though Sonargaon lost its prominence as a major political seat at this time, it none the less continued to be an important administrative headquarter for the Bengal *Subah* (province). With the loss of its political importance, it began to also lose its commercial importance in the late 17th century.<sup>[1]</sup> However, commercial activities continued. Sonargaon flourished once again under the British Colonial Rule, when it became a chief trading center for fabrics, namely cotton and muslin in the late 19th and early 20th Century. Painam Nagar, the unique township of Sonargaon, is a by-product of the commercial activities centered at Sonargaon and the activities of the East India Company and the Permanent Settlement Law. (Hussain, 2006)

[1] Certain accounts claim that the importance of Sonargaon as a center for commercial activities never declined such as mentioned in "Painam Nagar, Sonargaon" by Zainab F. Ali "*Architectural and Urban Conservation in the Islamic World*" (1990, Aga Khan Trust for Culture) pp 154.

Painam Nagar is a unique street that developed mostly during the Colonial Period, even though it was initiated during the Mughal period. It is one of its only kind that remains in Bangladesh today that has such a large number of residential houses adequately well-preserved together. It was a street with independent houses that was well protected by a canal, the Pankhiraj Canal and connected to the surrounding lands by small bridges. The Canal and one of the bridges survive today. It was visited by many famous travelers and its descriptions survive in their written accounts. (See 2.2.4)

As Painam Nagar grew as a by-product of commercial activities in the region, it is no surprise that most of the houses were owned by rich absentee families of Hindu merchants who preferred to live in Calcutta, visiting Painam Nagar only on social festivals or important occasions such as revenue collection etc. (Hussain,1997). Some accounts say that some families were originally from Bombay or Patna (Ali,1990). But upon closer observation, evidences that the unique township of Painam originally begun from the time of the Mughal Rule.

Some of the buildings were originally built during the Mughal Period. But the majority were constructed during the Colonial Period. Also, some buildings were found that have been originally built during the Mughal Period and then extensions and alterations made during the Colonial Period. (Refer to Fig.2a) These identifications can be made through observations and evidences such as the use of "zafree"<sup>[2]</sup> bricks, the interior ceilings of rooms, parapets, front elevations of houses etc. This is elaborately discussed in Chapter 6.

James Wise and W.W. Hunter<sup>[3]</sup> have expressed views that Painam Nagar may have had settlements dating from the Sultanate Period (Hussain, 2006). However, there are no concrete evidences to support such claims, and it may be stated that further excavations in the area may lead to more conclusive opinions.

[2] "Zafree" Brick: A thin local mud brick, burnt thoroughly to make it slim yet achieve high compressive strength. This brick is commonly known to be used in structures from the Mughal Period.

[3] James Wise, a traveler who wrote "*Notes on Sonargaon*" (1874) . W.W. Hunter wrote on a "*Statistical Account of Dacca District*" Volume V (1875).

### **2.2.2 SONAGAON AND PAINAM NAGAR: SOCEITY AND CULTURE**

As far as archaeological evidences support, it can be traced that an extensive and rich Muslim settlement existed in the Sonargaon region beginning from the Sultanate Period. Conclusive evidences have not been found regarding pre-Sultanate period. The area of Sonargaon has several mosques, tombs and relics of historical importance, with some of them still surviving (Fig.2b). However, the Muslim rulers during the Sultanate Period relied on Hindu farmers, merchants and tax-payers for the state revenue (Hussain, 2006).

During the late 19th century and early 20th century, Painam Nagar belonged uniquely to Hindu absentee traders who used these homes occasionally as mentioned previously. The buildings on Painam Street has elaborately decorated elevations derived from European influences (Fig.2c). Some of them have interior halls lined by colonnaded walkways. These double height halls are also intricately decorated (Fig 2d). It may be stated here that it is evident that the owners were concerned about displaying their wealth and affluence. The interior rooms are comparatively smaller which suggest that they were used temporarily, hence supporting the idea of absentee owners (Refer to Documented Plans attached in Chapter 6). Chapter 6 further discusses the architectural features and related conclusive evidences.



Fig 2c. Elevations derived from European influences



Fig 2d. Double-height hall rooms with intricate decorations

### **2.3 THE DECLINE AND PRESENT STATE OF PAINAM NAGAR:**

Painam Nagar eventually begun to be abandoned by its original Hindu owners during the 1900s amidst political turmoil. It was finally during the Partition in 1947 that the majority of the families migrated to India leaving behind these grand houses. Some of the families continued living at Painam Nagar until the late 1960s, but eventually they left, thus completely abandoning Painam Nagar. (Ali,1990)

Painam Nagar then became occupied by several illegal occupants and the surrounding area was sprawled with illegal shanty settlements by the locals. However in 2006, the Department of Archaeology along with the Government of Bangladesh evicted the illegal occupants. These buildings now are protected with restricted access for the public. Attached survey maps show the conditions in 1989, 2006 and 2014 respectively.

## **2.4 Strengths - Weakness - Opportunities - Threats (SWOT) ANALYSIS:**

### **Strengths:**

- Historic site of great importance, thus generates public interest and awareness.
- Situated only about 1 and half hours (approx) vehicular ride from Dhaka.
- The site is conveniently located near several other monuments. Some of them are as old as from the Sultanate Period (Fig 2b).
- Currently under the possession of the Department of Archaeology- Ministry of Cultural Affairs, Bangladesh.

### **Weakness:**

- The tertiary access roads are not wide enough to support large flow of vehicles to the site. The road running through the Painam Township is 5 m wide.
- The site has no *defined* entry or exit point as of now.
- The ancient canal, the "Pankhiraj Canal" is dying due to encroachment of land.
- Many of the buildings are structurally weak.

### **Opportunities:**

- The historic site of Painam Nagar has a great potential to become a thriving tourist/income-generating site for the locals. The site is already quite popular as a Drama/Movie/Still Photography location.
- Despite its ill-maintenance, it is still of great interest to the people who visit the place. None the less, it is considered a "secondary interest" as compared to the enthusiasm for the Folk Museum housed at Bara Sardar Bari.

Threats:

- The site is under constant threat vandalism and encroachment by the locals despite the buildings being locked up.
- The fact that Painam Nagar is not a religious site nor a palace leaves it at a state where it is not being taken seriously enough by any specific parties for preservation, conservation or restoration.
- The rapid urban growth of Narayanganj threatens the site to be soon engulfed on all sides by alien urban structures.
- Sonargaon itself, was placed in the 2008 Watch List of the *100 Most Endangered Sites in 2008* by World Monuments Fund (Evarts,2005).



## **CHAPTER 3**

### **3.0 LITERATURE REVIEW**

#### **3.1 THE IMPORTANCE OF HISTORY, CONSERVATION AND CULTURAL HERITAGE**

Man has always been keen to know where one originates from. Without a sense of identity, human beings remain unfulfilled. Patriotism, cultural values and societies all sprout from the concept of human beings' need to "belong". History provides us with a link to our past and enables us to value the present, while inspiring us to create a better future. Built forms from ancient periods serve as the greatest of all reminders and evidences regarding our past. These tangible elements remain to give us a clue about the lives of our ancestors, and create a kind of image of the intangible aspects of their lives. Thus, without the preservation and conservation of our historical structures, we will lose a part of our being, a part of our identity.

Historical structures do not just feed our psychological needs. They are also assets to a nation. They not only educate generations, but also serve as a recreational experience to many. It is always seen that the historic monuments of a country is visited by tourists and locals alike with equal enthusiasm. It is important to know that one need not have a keen interest in history, architecture or conservation to enjoy a historical site. The monuments in India such as the Taj Mahal, Red Fort (*Lal Quila*) etc serve as a good example of how historic places can be a joyous social civic space. Additionally, historic places inspire. As mentioned above, they create a sense of identity and national pride.

Heritage sites are also important for the economy. It may be noted here archeological and heritage sites are some of the most visited places of many countries by foreign tourists. This provides a strong influx of foreign currency into the economy thus benefitting the whole nation. Sri Lanka, Italy, India, Turkey along with many other countries economically benefit from heritage tourism.

History is an asset. It cannot be bought. It simply exists and is one of the few rare things that only grow richer with time. It grows almost silently, in many cases like a shadow without the present occupants of time being unaware. It is therefore one of the most invaluable assets to human existence and deserves respect and awareness.

## **3.2 CONSERVATION OF HISTORICAL BUILDINGS AND SITES: CLASSIFICATIONS AND APPLICATIONS**

As important as it is to conserve structures of historic significance, it is also sometimes unrealistic and in many cases, inappropriate to leave a structure unoccupied and unused. A building left unused can hardly benefit. But it is also necessary to know where it is appropriate to intervene, and where the structures should be left as they are. The line between such ideas is a rather thin one, and requires extensive study, documentation and understanding of the ideas that is associated with conservation and preservation. All these factors have given rise to several “school of thoughts” in the conservation approach.

Historic Preservation strives to keep the remains of old buildings in its original state and keep the previous function in a frozen form for display. This is more appropriate for buildings that are in a critical structural state. Architectural conservation attempts to find a new use of an old building, prolonging its life through adaptive-reuse. (Imamuddin, 2009)

The nature of the project determines which approach is most suitable. It should however be noted here that sometimes a project includes a combination of the several approaches.

Listed below are some of the key approaches (listed by Imamuddin, 2009) :

### **3.2.1 RESTORATION:**

This is considered as a more “conservative approach” to preservation. It involves returning a building to their original state, by replacing components destroyed and removing elements added later. Hence, through study and assessment is required to identify the time periods through which the building may have survived. An important consideration is how to accommodate modern services like electricity, fire fighting, security systems, water supply etc. as they are sometimes necessary for a successful restoration. However, it can be argued if restoration and freezing development is always the suitable approach.

An example of restoration would be Ahsan Manzil, the 19<sup>th</sup> century palace that sits on the bank of River Buriganaga in Dhaka, Bangladesh. This conservation work was recognized by ArcASIA Gold Medal.



Fig. Ahsan Manzil, the 19<sup>th</sup> Century Palace in Dhaka

### **3.2.2 REHABILITATION AND RENOVATION:**

Rehabilitation and renovation is more flexible than restoration. The idea is that buildings from the past must be adapted to its surroundings and society. Although changes may be necessary to adapt to present time, it is essential to keep the historical identity and sense of place. Thus two opposing ideas must be accommodated simultaneously; to hold onto the essence of the past and also to incorporate the present needs. This can be dealt through varying yet suitable treatment of the interior and exterior. The interior is changed to comply with the present needs and the exterior is restored to its original state.

Adaptive re-use is a relatively less rigid type of preservation where building is put to an alternative and yet adaptable use different from its original function. However, the original form and character of the building is maintained. Like warehouses turned into shops or restaurants, factory buildings used as shopping centers or museums, markets converted into housing etc. (Immamuddin, 2009)

In Dhaka, Curzon Hall was designed as a Town Hall in 1905, but has never been used as such. Its use as the Science Faculty Building of the Dhaka University is a good example of adaptive reuse.



Fig. Curzon Hall, 1905 – originally built as a Town Hall, presently used as the Science Faculty Building of Dhaka University

### **3.2.3 CONSERVATION**

Conservation strives not to rigidly recapture a sense of the past, but to preserve what exists and control changes. It attempts to halt changes that are inappropriate to the existing context. It encourages changes that are harmonious with the prevailing socio-physical urban fabric. One of the key objectives of conservation is to preserve the intangible aspects of heritage, that is to retain the socio-cultural and economic activities that give identity to the particular heritage building or site. In other words it means socio-cultural conservation through preservation of the built environment.

The streets of *Puran Dhaka* (Old Dhaka) in Bangladesh are a potential candidate for conservation. But little initiatives have been taken to preserve the vibrant streets.

### **3.2.4 REPLICATION**

Replication means building something new with the exact imitation of the one that may have been lost totally or partially. Replication is relatively rare. It is desired when the urban fabric has strong symbolic and nostalgic value, or places that may have been destroyed or lost due to natural or man-made calamities (such as war, floods, earthquakes etc) or a place that thrive on tourists for such monuments. For instance, the Old Town section of Warsaw, Poland and parts of Nuremberg, Germany were rebuilt exactly as after they had been destroyed in World War II. Usually the

exteriors of such replications are authentic reproductions, and the interiors are modified according to required standards of comfort and safety.

The Central Shahid Minar in Dhaka, Bangladesh is a significant example of Replication. It has been replicated in Bangladesh and also abroad (Japan, Australia). It was a monument built in memory of the 1952 Language Movement martyrs.

### **3.2.5 RELOCATION**

Whenever a historical monument or a significant group of structures are threatened by any new project of prime importance, it becomes mandatory to remove and relocate the monument or structure in question. There are very few examples of relocation. The temple of Abu Simble in Egypt had to be relocated on higher grounds when the Aswan Dam was built.

### **3.3 CONSERVATION AND PRESERVATION IN BANGLADESH'S CONTEXT:**

Bangladesh is placed in such a geographic location that made it a cross road between many foreign travelers, traders and even rulers. This country at Bay of Bengal had been a melting pot of fusions of ideas, cultures and influences ranging from the influential Buddhist and Hindu rulers to the Mughals and eventually the colonizers, the British.

Architecture has always been the expression of power, wealth and even lifestyles of the time periods of a nation. Bangladesh hence is blessed with an architectural heritage that is a rich fusion of many styles, influences and time that is worth preserving. It is within this piece of land that one can find the majestic Buddhist Vihara at Paharpur, and also colonial palaces such as Ahsan Manzil. Conservation, preservation and most importantly awareness about their importance is essential in Bangladesh.

But the field of conservation in Bangladesh is a rather infant one. The formal activities of conservation began with the Department of Archaeology following Bangladesh's independence in 1971. Preservation policy in Bangladesh postulated that a building or a complex has to be as old as 100 years or more to be considered as historic property that merits preservation. (Imamuddin, 2009) However, the preservation activity is minimum due to lack of expertise in this field and meager allocation of fund.

Architectural conservation, which is different from historic or archaeological preservation, was not a major academic, professional or state concern till the late 1980s in Bangladesh. It was the Aga Khan Trust for culture who helped to develop awareness on architectural conservation by organizing a major international workshop in Dhaka in April 1989. But today, even though at a slow pace, the awareness for the preservation of heritage and architecture has increased and Bangladesh has seen several successful conservation projects. But it may also be noted here that in many cases, buildings were "ruined" in the name of preservation due to lack of proper expertise and documentation. One well discussed example is the Shait Gumbat Mosque, a UNESCO World Heritage site in Bagerhat, Bangladesh. The columns inside the mosque were plastered, which increased their thickness, and then painted white, ruining the interior look completely. The columns were originally slender and made of stone, which now exists only in photographs.

The idea of "adaptive re-use" in Bangladesh is not a new one. There are several prominent example of successful adaptive re-use in Bangladesh. Some of them are Curzon Hall which is now the

Science Faculty of the University of Dhaka, was originally built as a Town Hall (though never used); the Dhaka Medical College building originally used as a Secretariat Building etc.

### **3.4 THE CONSERVATION APPROACH TO PAINAM NAGAR:**

Painam Nagar at Sonargaon is a strip of street that has 52 buildings frozen in time. All the buildings are now property of the Bangladesh Government. These houses were once owned by wealthy Hindu merchants. Today these houses face the threat of vandalism and dilapidation as they are unoccupied and simply sealed off by the Department of Archaeology. But the street can be visited by people and the building observed only from the exterior.

It may be argued on the view-point of what should Painam Nagar be today. It may very well be preserved, frozen in time and left for people to view them as artifacts. Or they could be adaptively re-used. Each building could house a function that compliments the socio-economic context of the site as it exists today. (See Chapter 5 of this document for detailed discussion)

In today's context the issue of architectural conservation has attained a wider meaning; it is not limited to the nostalgia of the past with respect to built environment. It involves more fundamental socio-economic and sustainable aspects that focus on mineralization of resource utilization. The recycling of old buildings for new uses is a recognized means of such sustainability since a considerable resource can be saved that is contained within the existing built environment. The rehabilitation and upgrading of the existing building stocks is therefore exceedingly important for architectural sustainability. It is not considered rational to rebuild new environment for each generation. Re-use implies recycling of spaces and materials. Moreover, the conservation of the existing buildings and area in cities or towns will not only ensure saving of resources for demolition and rebuilding, it will also prevent disruption of the socio-cultural environment. (Imamuddin, 2009)

It may also be observed here in many cases, adaptive re-use is in appropriate especially in the case of religious structures. A structure that once served as a house of worship almost always continues to be so. Rather adaptive re-use is more appropriate for structures that have out-grown their use, for instance the way forts and castles became less effective of obsolete once airplanes engaged in warfare. (Imamuddin,2009) The advantage that the structures on Painam Street have is that they were all used for residential purpose. Also, it is important to understand that it is usually the house of worships and the grand castles and palaces that people convert to museum or historical-cultural sites. Residences are usually converted for re-use.

Pai nam Nagar today is an asset. Individually, the buildings might not be of great architectural importance, but collectively they create an ambience which may transport people into a different time. It is the closest that Bangladesh has to a well preserved township of a certain period of time. But leaving them un-used, abandoned or frozen in time does little or no good. Even allowing people to reside there as occupants would be inappropriate as the lifestyles of the people have now evolved. But it possesses a huge potential to be re-used with a suitable function that will revitalize the area.



## **CHAPTER 4**

### **4.1 CASE STUDY 1: GALLE FORT, SRI LANKA**

#### **4.1.1 INTRODUCTION:**

Galle Fort, in the Bay of Galle on the southwest coast of Sri Lanka, was built first in 1588 by the Portuguese, and then extensively fortified by the Dutch during the 17th century from 1649 onwards. It is a historical, archaeological and architectural heritage monument, which even after more than 423 years maintains a polished appearance, due to extensive reconstruction work done by Archaeological Department of Sri Lanka.

The fort has a colorful history, and today has a multi-ethnic and multi-religious population. Most of the properties inside the fort are owned by the Sri Lankan Government and Dutch people. A minor portion of the properties is owned by locals. The heritage value of the fort has been recognized by the UNESCO and the site has been inscribed as a cultural heritage UNESCO World Heritage Site in December 1988 under criteria IV, for its unique exposition of "an urban ensemble which illustrates the interaction of European architecture and South Asian traditions from the 16th to the 19th centuries."

The Galle Fort, also known as the Dutch Fort or the "Ramparts of Galle", withstood the Boxing Day Tsunami in 2004 which damaged part of coastal area Galle town. It has been since restored.

Since its declaration of a UNESCO World Heritage site, then it has never been the same for this sleepy city in the Southern Coast of Sri Lanka. Covering an area of 40 hectares (100 acres), this walled city is strategically located as the western landmass that protects a natural harbor. With no requirement for a buffer zone to be identified at the time that this site was declared a World Heritage Site, the area that was immediately outside the Fort was under threat because it was also the Central Business District of the City. However, planning controls were brought about with the use of the local Antiquities Ordinance that demanded a 400 yard buffer zone of any listed monument. Being a living settlement of around 700 houses alone, this historic site cannot be frozen in order to preserve.

Following the Boxer Day Tsunami in 2004, the Government of Sri Lanka along with the Government of Netherlands formulated plans to restore the buildings inside the Galle Fort.

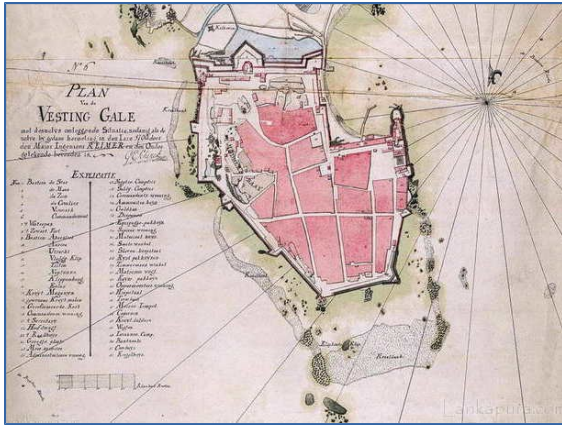


Fig. Galle Fort map – by the Dutch 17<sup>th</sup> century



Fig. Galle Fort Aerial View – Present day

#### **4.1.2 HISTORY:**

Galle's earliest historical existence is traced to Ptolemy's world map of 125–150 AD when it was a busy port, trading with Greece, Arab countries, China and others. Its mention as a "port of call of the Levant" is made in the cosmography of the "Cosmas Indicopleustes". This is the harbor where the Portuguese, under the leadership of Lorenzo de Almeida, made their first landing in 1505 on the island and caused a notable change in the history of the island with their close friendship with Dharmaparakrama Bahu (1484–1514), the then king of Sri Lanka.

This was the beginning of the fort's history, which was built by the Portuguese, along with the now almost ruined Franciscan chapel inside the fort in 1541. Before the Portuguese came here, Ibn Batuta had touched base at this port. This was the beginning of the fort's history, which was built by the Portuguese, along with a Franciscan chapel (now mostly in ruins) inside the fort in 1541. The fort also, in later years, served as prison camp to incarcerate Sinhalese natives who opposed the Portuguese. The Portuguese later moved to Colombo as they preferred it there. But the Portuguese eventually retreated back to Galle as they were attacked by Sinhalese King Raja Singha I (1581–93) of Sitawaka.

The Dutch took over the Fort from the Portuguese in 1640, when they attacked, collaborating with King Rajasinha II, with a force of some 2,500 men under Koster. It was under the Dutch that the Fort truly flourished, and most of the important structures that remain today being built under the rule of the Dutch. Fortifications continued to be built until the early 18th century.

The British took over the fort on 23 February 1796; one week after Colombo was captured. Sri Lanka remained a British colony formally from 1815 till it became an independent island nation in 1948. In 1865, part of the fort was converted into the New Oriental Hotel, becoming the Amangalla in 2005. The importance of Galle also declined after the British developed Colombo as their capital and main port in the mid nineteenth century.



Fig. Galle Fort Ramparts – 1860 (unknown photographer)



Fig. Galle Fort Ramparts– Present day

#### **4.1.3 ARCHITECTURAL FEATURES, LAYOUT AND IMPORTANT BUILDINGS OF THE FORT:**

Galle Fort is located at the extreme southwest corner of the island. The fort, like most of the forts in Sri Lanka, is built on a small rocky peninsula, belonging to the sea as much as to the land. As it exists today, it covers an area of 52 hectares (130 acres).

Although not an ideal situation for the Sinhalese, they were instrumental in building the fort as seen in its present form in the Dutch architectural style. Fortifications continued to be built until the early 18th century. The main exterior wall of the Fort is made of rocks and corals, a rather common combination in Sri Lanka.

The establishment built consisted of public administration buildings, warehouses and business houses and residential quarters. A Protestant Church was also built in baroque style in 1775 to cater to the colonists and the local people who were converted to Christianity. The most prominent buildings in the fort complex were the Commandant's residence, the arsenal and the gun house. Other buildings erected in the fort catered to trade and defense requirements such as workshops

for forgings, carpentry, smithy, rope making and so forth. They also built an elaborate system of sewers that were flooded at high tide, taking the sewage away to sea. This system is still functioning today.

After the fort came under the control of the British in 1796, it remained their southern headquarters. The Second World War saw many more fortifications built to defend the fort. In spite of all the changes made over the years, since it was first built between the 16th and the 19th century, the Galle Fort still remains a unique monument complex said to be "the best example of a fortified city with a fusion of European architecture and South Asian traditions built by Europeans in South and Southeast Asia"

### **Fort Layout:**

The fort, originally built by the Portuguese in the 16th century to defend Galle, was an earthen structure with palisades covering the northern land side with rampart and three bastions.

When the fort came under the control of the Dutch, they considered the old fortifications built by the Portuguese unsafe as they were made of earth and palisades. Hence, the Dutch decided to fully encircle the entire peninsula by building impregnable fortifications as defense against other colonial agencies in the region. They built some 14 bastions with coral and granite stones over an area of (52 hectares (130 acres). Many of the fortification walls were built in 1663.

The city built within the fort was well planned with a grid layout with the peripheral roads aligned parallel to fort's ramparts. The fort has two gates. The Main Gate is in the northern stretch of the fort on the land side and is heavily fortified. Walking along the fort wall in a clockwise direction leads to the Old Gate where the British Coat of Arms is seen inscribed at the entrance at the top. In the inner part of the gate there is the 1668 dated inscription of letters VOC, which is an abbreviation of *Verenigde Oostindische Compagnie*, meaning Dutch East India Company with the insignia of a cock flanked by two lions.

### **The Structures:**

The Fort really resembles a small laid out walled town, with a rectangular grid pattern of streets full of the low houses with gables and verandas in the Dutch colonial style. It has a well laid out road network and many buildings which are now heritage monuments such as the Oriental Hotel, originally built in 1694 for the exclusive use of the Dutch Governor and his staff, now converted into

a franchise of the Aman Resorts, named the Amangalla. The fort area is studded with churches, mosques, many old commercial and government buildings. Some of the locals stroll along the walls of the fort in the evenings.

In the fort area, many buildings are of Dutch vintage with street names also in Dutch. The sewerage system built in the fort area ensured that the city sewerage was flushed into the sea during the tidal cycle. The fort contains an ensemble of important landmarks and buildings. Most of them have been adaptively re-used. Only the churches remain as churches. Some of them are as follows:

- The Dutch Reformed Church; the old Dutch government house;
- The National Maritime Museum near the Old Gate,
- Residence of the Commander;
- Great Warehouse built around 1669 to store spices, ship equipment and so forth;
- The Meera Mosque built in 1904;
- Buddhist temple built at the site of Portuguese Roman Catholic church;
- The All Saints Anglican Church built in 1871; and the Clock Tower dated 1707 and cast in 1709, which rang every hour.

The most unique thing about the Fort remains its houses. Almost all of them are from the Dutch period, thus displaying a characteristic mixture of European architectural styles with the local Asian styles. The houses have courtyards, colonnaded entry porches, arched walkways etc. In terms of space layout, the houses resemble a more Asian approach than European. A central courtyard and large windows are dominant. Overhung eaves of the roofs are very native to Sri Lanka as it has a considerable amount of rain all round the year.

#### **4.1.4 BEFORE RENOVATION, RECOGNITIONS AND INITIATIVES:**

In 1986, the International Council on Monuments and Sites (ICOMOS) nominated Galle Fort for the status of a UNESCO World Heritage Site. Galle Fort was inscribed in 1988 as a cultural heritage site under criterion IV. Stated in ICOMOS' report was the following.

The city of Galle including the Galle Fort was affected badly during the 2004 Boxer Day Tsunami. But it was following this disaster that the Ministry of Cultural Affairs of Sri Lanka launched a project for renovation and reconstruction, but paying attention to the former architecture to retain a historical feel.

The Galle Fort has both Portuguese and Dutch era buildings, reflecting the bygone era of the colonial domination of the city. These buildings needed attention as many changes had taken place over the centuries. The Government of Sri Lanka, through its Galle Heritage Foundation under the Ministry of Cultural Affairs and National Heritage has taken the initiative of restoring some of the heritage buildings to their old glory. The restoration work has been financially supported by the Government of the Netherlands. The renovation work conforms to guidelines set by the Archeological Department of Sri Lanka. Technical guidance was provided by the Architectural Wing of the University of Moratuwa.

#### **4.1.5 PRESENT CONDITIONS:**

Very many of the old town houses have been bought up by expatriates and rich Sri Lankans and Indians and renovated as holiday homes. The fort area is occupied by mostly artists, writers, photographers, designers and poets of foreign origin and is now a mixed bag of boutiques, hotels and restaurants. The most amazing aspect of this renovation project remains the fact that a stroll inside Galle Fort seems to transport a visitor to a completely different time-frame. Strolling within the Galle Fort, the charming and quaintly beautiful houses will jolt your imagination as to what life would have been like during the colonial times.

Old houses belonging to the Portuguese and Dutch era stand strong even today and would make any visitor curious. Sri Lanka, being a country that has a fast growing and thriving tourism industry, had smartly renovated the facades of almost all the structures with an attempt to restore their original colonial expressions by Government funding. The interiors were renovated and modernized to accommodate functions that serve mostly the tourism industry.



The Galle Heritage Foundation in collaboration with the “Netherlands Sri Lanka Cultural Cooperation Program” which is funded by the Netherlands government provided the funding for such a project in 2007. An allocation of Rs. 51 million has been made to carry out renovations to the houses within the Galle Fort. The facades of many Dutch houses had been altered by the present residents and the Galle Heritage Foundation has had to renovate these houses to bring back the original look. The old world houses possess much charm and if only the houses could tell their story it would surely be a long, interesting and thrilling tale of yore.

Galle Fort now remains one of the most visited tourist attractions of Sri Lanka. Conveniently located only 2 hours away from Colombo, its residents are now mostly involved in trades that compliment the tourism industry such as boutique hotels, restaurants, clubs, souvenir shops etc. It is important to note that the ownership of each of the buildings remain private (mostly owned by locals or non-resident Sri Lankans, and some by foreign parties/individuals). The Government had only played a role in renovating the facades.



Fig. Street view Galle Fort- Present day



Fig. Street view Galle Fort- Present day

#### Texts, descriptions and images:

(1) *"Galle — a port city in history"* 15 November 1997, Galle <http://www.lankalibrary.com/geo/galle1.html> (accessed 30th August 2014)

(2) *"Real Ceylon"* C. Brooke Elliott (1 December 1996). (accessed 26th August 2014)

[http://books.google.com.bd/books?id=kWKsWMFVtVIC&pg=PA30&redir\\_esc=y#v=onepage&q&f=false](http://books.google.com.bd/books?id=kWKsWMFVtVIC&pg=PA30&redir_esc=y#v=onepage&q&f=false)

(3) *"A Historic tour through the city of Galle"* (accessed 26th August 2014)

<http://www.lankalibrary.com/heritage/gall.html>

#### **4.1.6 ANALYSIS:**

This case study is a good example of how an abandoned / existing site having buildings that are historically significant can be re-used and made a successful revitalized place. Leaving a building preserved and un-used is a waste of resources and space. If a building can be incorporated to suit the modern needs while keeping its historical significance and outlook untarnished, it can serve the local people much more. The success of a project such as the one from Galle Fort sets an example of how the adaptive re-use and restoration initiative of a heritage site can not only transform and protect the buildings, but also change the lives of the inhabitants in and around them.



Fig. Hospital Building - under renovation to be used as shops



Fig. Street view Galle Fort- Present day



Fig. Street view Galle Fort- Present day



Fig. Street view Galle Fort- Present day



## **4.2 CASE STUDY 2: KOLUMBA MUSEUM, BY ARCHITECT PETER ZUMTHOR**

### **COLOGNE, GERMANY**

The Kolumba Museum in Cologne, Germany, is a remarkable work of Swiss architect Peter Zumthor, a Pritzker Prize laureate. In a display of mastery and sensitivity, the architect manages to fuse the ruins of a destroyed Catholic church, with modern, sober and minimalist architecture, and highly sensitive to the theme of the works it houses: religious art.



Fig. 4a Kolumba Museum, Cologne, Germany - street view

### **4.2.1 INTRODUCTION**

A church dedicated to St. Columba, located relatively close to the magnificent Cologne Cathedral, used to be the most important church of the diocese. Unfortunately, the building was completely devastated after the allied bombing that reduced the city into ruins during the Second World War, with the exception of an old Gothic image of the Virgin placed on a pillar, which survived intact. This icon, called "the Madonna of the Ruins" was considered by many a symbol of hope during the painful and difficult years of the post-war reconstruction.



Fig. 4b Interior of Church of St. Kolumba before the bombing (left) and after bombing (right) .

Image on right shows remaining walls of Church on which Kolumba Museum was built.

In fact, an octagonal chapel, designed by Gottfried Böhm in 1950, was built to honor the image. A precious historical value was added to the symbolic importance of the place, when in 1973 Roman, Gothic and medieval ruins were discovered under the old church.

For this reason, the Kolumba art society, which keeps a large collection of Christian art commissioned in 1997 a contest in order to reevaluate the church and also to provide a space for displaying their collection in an area of 1.600 m<sup>2</sup>.

#### **4.2.2 THE PROPOSAL AND APPROACH TO DESIGN**

Peter Zumthor won the competition with an ambitious and humble idea at the same time: the building completely surrounds the ruins of the church and in fact merges with them while using the upper level and a side wing to house the exhibit areas.

Zumthor's design delicately rises from the ruins of a late-Gothic church, respecting the site's history and preserving its essence. "*They (the Archdiocese) believe in the inner values of art, its ability to make us think and feel, its spiritual values. This project emerged from the inside out, and from the place*<sup>9</sup>, stated Zumthor.

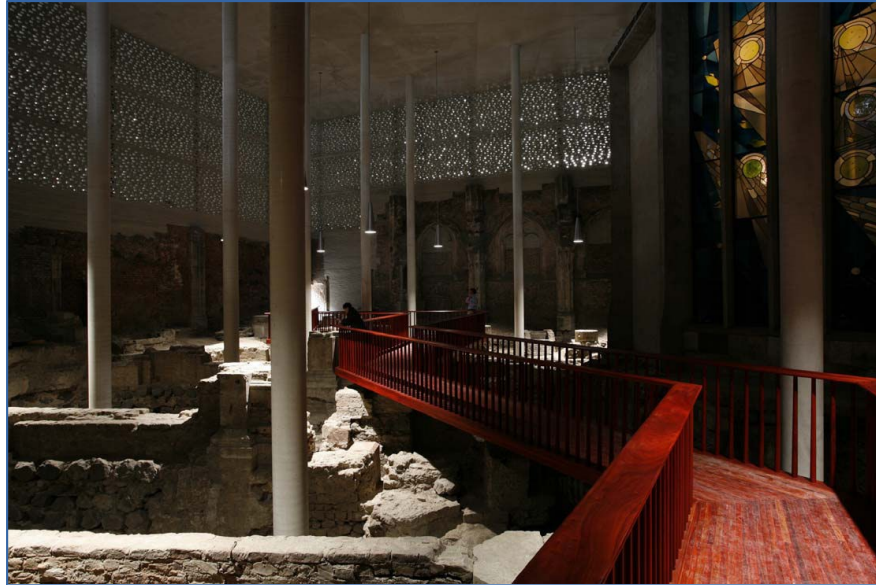


Fig. 4c Kolumba Museum, Interior showing walkway and columns above ruins

Externally, the building is characterized by its massiveness, a simple and severe composition of warm-colored volumes and thus integrates both to its urban context as well as the historic site where is located.

However, despite this massiveness, the building is surrounded by garden areas that allow the space to permeate within the urban fabric.

#### **4.2.3 MATERIALS AND DETAILS**

Zumthor, consistently mindful of the use of the materials, and specifically their construction details, has used grey brick to unite the destroyed fragments of the site. These fragments include the remaining pieces of the Gothic church, stone ruins from the Roman and medieval periods, and German architect Gottfried Böhm's 1950 chapel for the <sup>a</sup>Madonna of the Ruins.<sup>9</sup>

The texture of thin grey custom made brick, handmade by Tegl Petersen of Denmark, frames the remains of the old chapel achieving a remarkable integration between new and old.

The facade of grey brick integrates the remnants of the church's facade into a new face for the contemporary museum. Articulated with perforations, the brick work allows diffused light to fill specific spaces of the museum. As the seasons change, the "mottled light shifts and plays across the ruins,<sup>9</sup> creating a peaceful ever-changing environment.





Fig. 4d Custom-made brick detail and joinery

Part of the success in this fusion lies in the simplicity of form, color and material that embed these Gothic-style fragments.

Another noticeable feature are the perforations on the facade, forming a kind of lattice made on the basis of the bricks themselves. This effect lightens the perception of the volume.

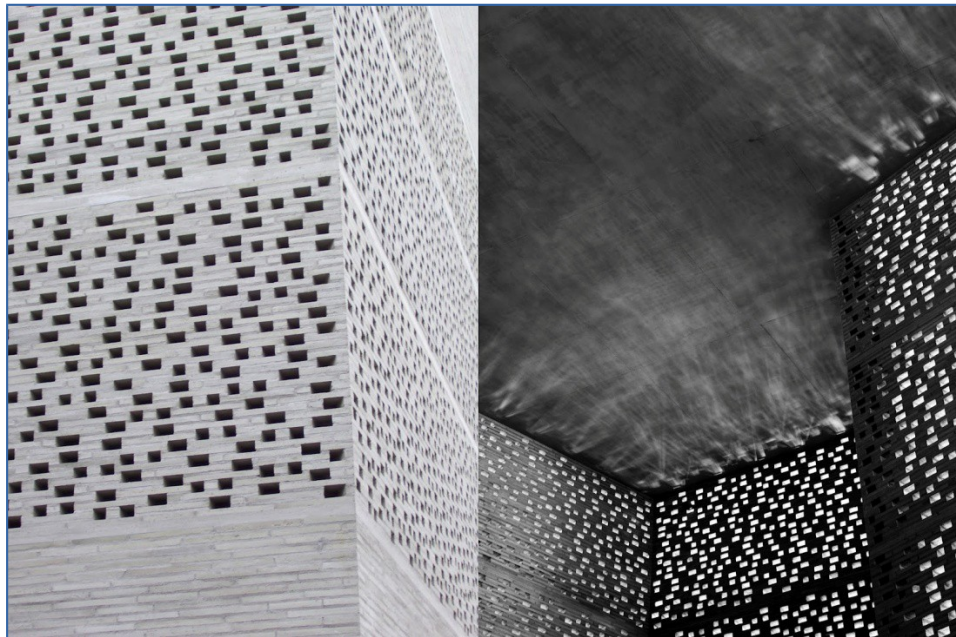


Fig. 4e Perforations on wall. These perforation both serve to make the structure look lighter and allow dramatic light

It is however in the interior of the building where Zumthor's work can be better appreciated. The architect has wrapped both the octagonal chapel as well as the Roman ruins with a double height nave supported by thin metal columns. This monumental space is dramatically lit up since indirect light filters through the lattice in the walls.

The visitor is able to walk throughout the chapel by means of a winding passage which lies over the ruins. This is a resource is used in some archaeological sites in order to allow visitors to experience the sites from up close, but reducing the impact on heritage, for example in the Basilica Cistern in Istanbul, Turkey or the New Acropolis Museum in Athens, Greece.

Besides the chapel, the building includes 16 exhibition rooms arranged on three levels, including the area on top of the church, and at the heart of the building, a secret garden courtyard ± a quiet and secluded place for reflection. In these areas, works of ancient and contemporary religious art works are displayed, including some books of sacred art.



Fig. 4f Kolumba Museum, Interior

The exhibition area of these galleries is dotted with large windows from where the architect frames some superb views of the surrounding cityscape, also reflected in the polished white floor of these rooms.

The building also opens its views to some courts designed in a serene Zen minimalism, which houses works by famous sculptors like Richard Serra and Joseph Wolf.



Fig. 4g Kolumba Museum, the courtyard at the heart of the building featuring installation by artist Richard Serra

In sum, both by the use of form, material and light, the architect manages to imbue the museum with a sense of serenity and meditation that, while it is perfectly suitable to house the collection of Catholic art, it transcends the boundaries of a specific religion to imbue the visitor with an atmosphere of spirituality away from the worldly bustle of the city.

Texts, descriptions and images:

(1) <http://www.arcspace.com/features/atelier-peter-zumthor/kolumba-museum/> (accessed 26th August 2014)

(2) <http://www.archdaily.com/72192/kolumba-museum-peter-zumthor/> (accessed 14th July 2014)

(3) <http://architecturalmoleskine.blogspot.com/2012/04/peter-zumthor-kolumba-museum-cologne.html> (accessed 2nd August 2014)



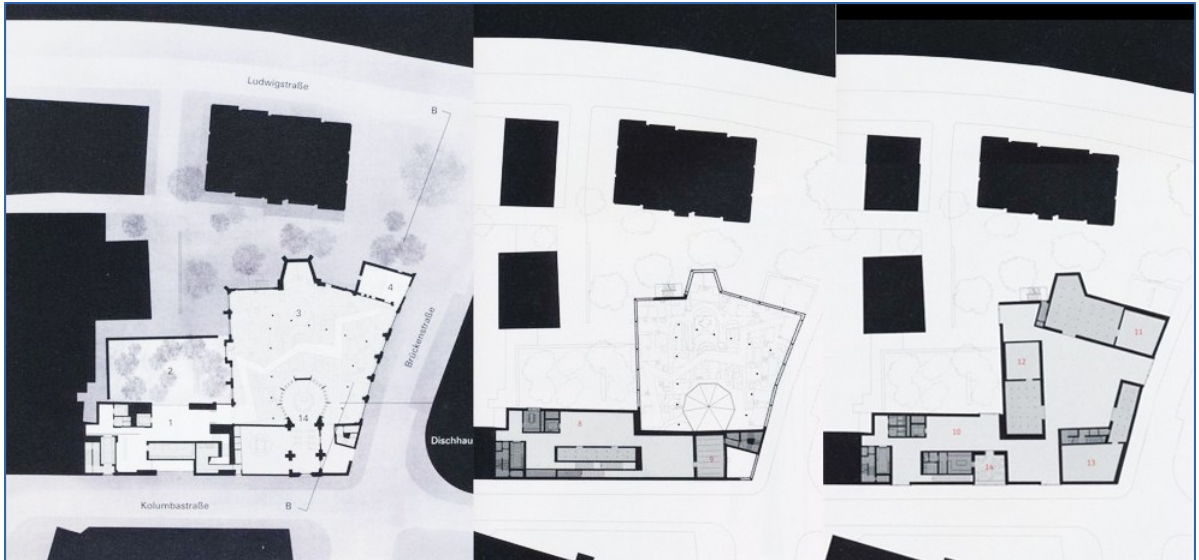


Fig. 4h Kolumba Museum, Floor Plans. Level 00, 01, 02 (left to right)



Fig. 4i Kolumba Museum, Sections



#### **4.2.4 ANALYSIS : "THE ARCHITECTURE OF RUINS"**

Peter Zumthor's Kolumba Museum is not about a plan, a section of simply housing a function under a roof. It is about the architecture of place history, and most importantly, *the architecture that is present in its own absence*. It is about the essence of place and about how the ruins of one place may very well be the road to its very own transformation.

Built on the ruins of the Church of St. Kolumba, this project is one which plays with all the senses. The sensitivity of the architect towards his decisions regarding the additions are sheer genius. It is as if the additions exist only to complement the ruins, never to overpower them. Even though the towering masses grow above the ruins, they do so subtly and the ruined walls are always in focus. The reddish hues of the ruins are always capturing the greater proportion of one's attention as compared to the soft grey hues of the custom made bricks of the new structure.

However, the true essence of the building lies in its interior, deep within its heart, as the architect himself stated, "You feel that the project was started from the inside, from the art and from the place." (Arcspace, accessed 26th August 2014) Serene spaces, defined yet limitless, appear within the constructed structure; lights play dramatically across variation of materials; whilst secret garden spaces buried deep with the heart acts as spaces of contemplation.

Zumthor's Kolumba Musuem is the ideal example of "the architecture of ruins" and how what "once was" becomes "what is", and that which was discarded and left crumpling away to time may emerge once more, like a phoenix rising from its own ashes.

## CHAPTER 5

### 5.0 PROGRAMME AND DEVELOPMENT

#### 5.1 PROGRAMME RATIONALE

As Discussed in Section 3.5 of this document, there can be multiple approaches for the conservation of Painam Nagar. It could be summarized that the street front houses of Painam Nagar could be restored, conserved and rehabilitated and renovated for re-use. Or it could be approached with a mixture of ideas mentioned.

##### 5.1.1 RATIONALE FOR CHOSEN APPROACH

Painam Nagar once used to be residential houses for wealthy absentee Hindu merchant families. Today these houses may not be suitable to the lifestyles of the people living in the area now. The rooms are considerably small and some of the houses too large to be maintained by single families or individuals. Most importantly, Bangladesh, chiefly Dhaka City has seen several unfortunate examples of how a heritage building might get *engulfed by its new use* should it be assigned to a function that might *not necessarily require the building itself to be preserved*.

One such example would be the **Residence of Revoti Mohan Das**, situated on the Revoti Mohan Road in Sutrapur amidst the densely populated Old Dhaka. Built in the early 20th Century by Revoti Mohan Das, an influential Hindu landlord, this house is a heritage building by all accounts capturing the 'essence of time' of the colonial period in Bengal. The mansion is constructed on a one-acre land, and is an amalgamation of two three-storied buildings constructed close together. There are a total of thirty-five 'apartments' or rooms within the whole building. The building displays the typical European influences on its elevations, with a layout more native to Bengal and contains three courtyard spaces.

However, during the Partition in 1947, like many other mansions, the Residence of Revoti Mohan Das was abandoned and it came under the custody of the Government of East Pakistan (then; now under the Government of Bangladesh), and was listed as 'abandoned property'. It was then assigned to be used first as a Fire Station, and later as the accommodations for the families of fire fighters. Today it houses about 50 families. In the context of Bangladesh, where encroachment and unawareness is common, assigning this building to a use that does not require the heritage and architectural ambience of the building itself to be preserved, has led this building to be now losing its originality.

Even though the building is not falling into dilapidation as it is being used regularly and under maintenance by a certain group of people, it has suffered the additions of abruptly and inappropriately constructed blocks to meet the ever growing demands of the families residing there now. In recent times, the building lost one of its three courtyards to an inappropriate addition of multi-roomed blocks inside one of its courts, despite protests and disagreement expressed by certain civil societies. Addition of inappropriate rooms can also be seen at the entrance under the double-height colonnaded portico. Bangladesh unfortunately suffers several such examples where re-uses assigned to heritage buildings has resulted in the loss of the originality and ambience of the building, resulting in encroachment, destruction and mutilation of the priceless heritage buildings. Example: Ruplal House in Old Dhaka.



Fig.5a Residence of Revoti Mohan Das, Old Dhaka



Fig.5b Ruplala House, Old Dhaka

However, there are successful examples in Bangladesh where assigning a heritage building to a re-use that requires the preservation of its ambience, architecture and originality to sustain the function has yielded successful results. An appropriate example would be **Ahsan Manzil**, the 18th Century palace on the banks of River Buriganaga.

Belonging to the Nawabs, the most magnificent palace of Dhaka was abandoned for decades before the Government of Bangladesh decided to turn it into a museum (1985) the Public Works Department. Ahsan Manzil was built in the mid 18th Century as a pleasure palace, sold to the French who used it as a factory. In 1835, Khwaja Alimullah bought the building and begun to live there after some renovations, affecting the original structure. In 1872 his son Nawab Abdul Ghani

again renovated the palace and named it 'Ahsan Manzil' after his son, Ahsanullah. The 1887 cyclone damaged the palace severely; it was renovated again and dome was built atop. After another round of renovation in 1992, it was brought under the control of the Bangladesh National Museum which set up a branch inside. The conservation work was recognized by ArcASIA Gold Medal. (AH Imamuddin, 2009)



Fig. Ahsan Manzil, the 19<sup>th</sup> Century Palace in Dhaka

Hence, the conversion of Ahsan Manzil into a museum has now resulted in it being protected in terms of originality, ambience and architecture. It is desirable that a museum exhibiting the history and lifestyles of the Nawabs require the museum itself to radiate the ambience and appear as if it were from the times of the Nawabs.

### **5.1.2 THE ADAPTIVE RE-USE OF PAINAM NAGAR: RATIONALE, INFLUENCES AND APPROACH**

Painam Nagar is an idle asset. The set of 49 buildings together create an marvelous ambience that has the ability to transport its visitors to a different time period. Leaving Painam Nagar frozen in time to be viewed just as artifacts would be a considerable waste of resources and would have a lesser chance of them being protected, as a building with no-use is a building heading towards dilapidation.

Painam Nagar is by all accounts an important heritage site that is significant culturally, architecturally and historically. But in order to ensure its longevity, revenue must be generated as the economics of preservation is equally as important as the philosophy of it. Also, without a defined body in charge of them, they are more prone to vandalism and destruction. None the less, the chosen method must fit the present socio-cultural context.

#### **RATIONALE: WHAT INFLUENCES PAINAM NAGAR TODAY?**

Painam Nagar, although once owned by Hindu merchants, now have a completely different set of 'users'. It is influenced in the present-day by various factors which at first sight may appear disconnected, but actually influence one another. This section discusses the various influences on the abandoned street of Painam Nagar.

### **INFLUENCES: THE BUILT AND THE OPEN**

As Fig 5d shows, Painam Nagar today is surrounded by moderately dense low rise structures, mostly residential with a few commercial. Also large areas all around Painam Nagar are used as agricultural lands, conveying Painam Nagar semi-urban context. However, these built structures and open spaces, along with their users have little or no effect on the abandoned Painam strip.

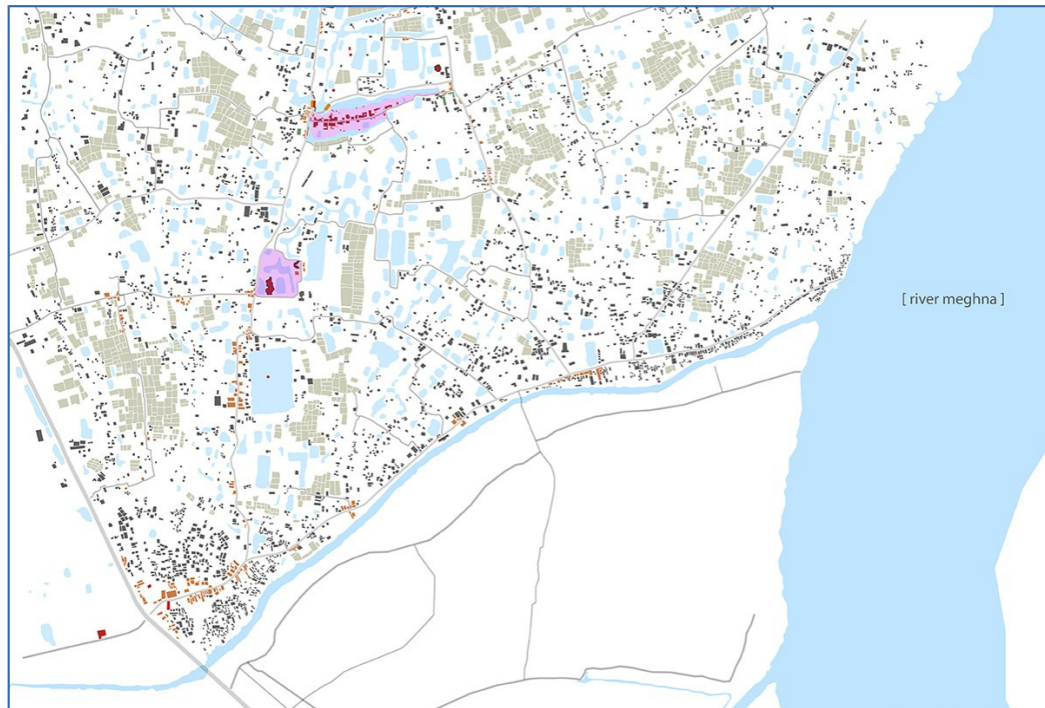


Fig 5d. Painam Nagar- built (residential and commercial) and open (agricultural lands)

### **INFLUENCES: THE 'OIL-ON-WATER' EFFECT - An Analogical Comparison**

Oil and water are two substances at the same state that may exist within the same container, yet not mix with one another. The present situation of Painam Nagar may be analogically compared to that of an oil drop on water, where Painam Nagar is the 'oil drop' that does not mix with its surroundings, that is the 'water'.

Painam Nagar today exists like an oil drop. It is disconnected and does not mix with its surroundings. As its surroundings grow, it remains insoluble as ever. Eventually another 'oil drop' (i.e. other heritage sites) emerges. These 'oil drops' (heritage sites) influence one another, that is in terms of the users/visitors (example- visitors coming to visit the Folk Art Musuem or Choto Sardar Bari almost always visits Painam Nagar), yet the surrounding built structures, farmlands and the locals have little or nothing to do with Painam Nagar.



The diagram Fig. 5e illustrates the idea discussed .

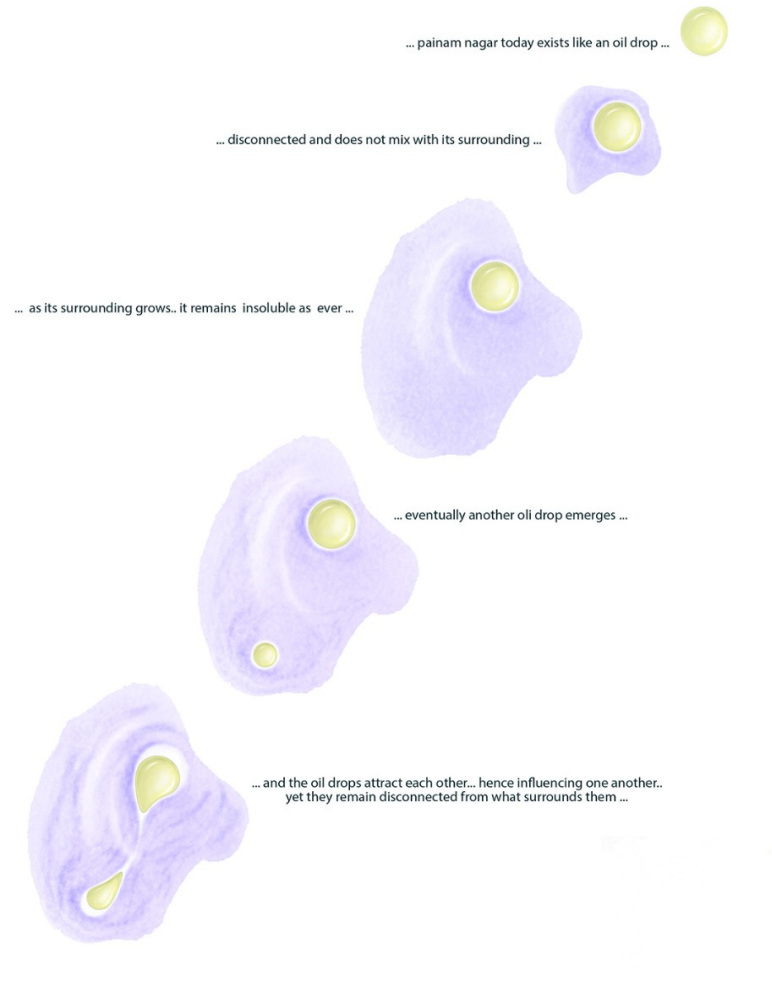


Fig 5e. Painam Nagar- The 'oil-on-water' effect illustrated

Upon an even broader look, there exists many more heritage sites around Painam Nagar. Refer to Fig. 5f attached on the next page.

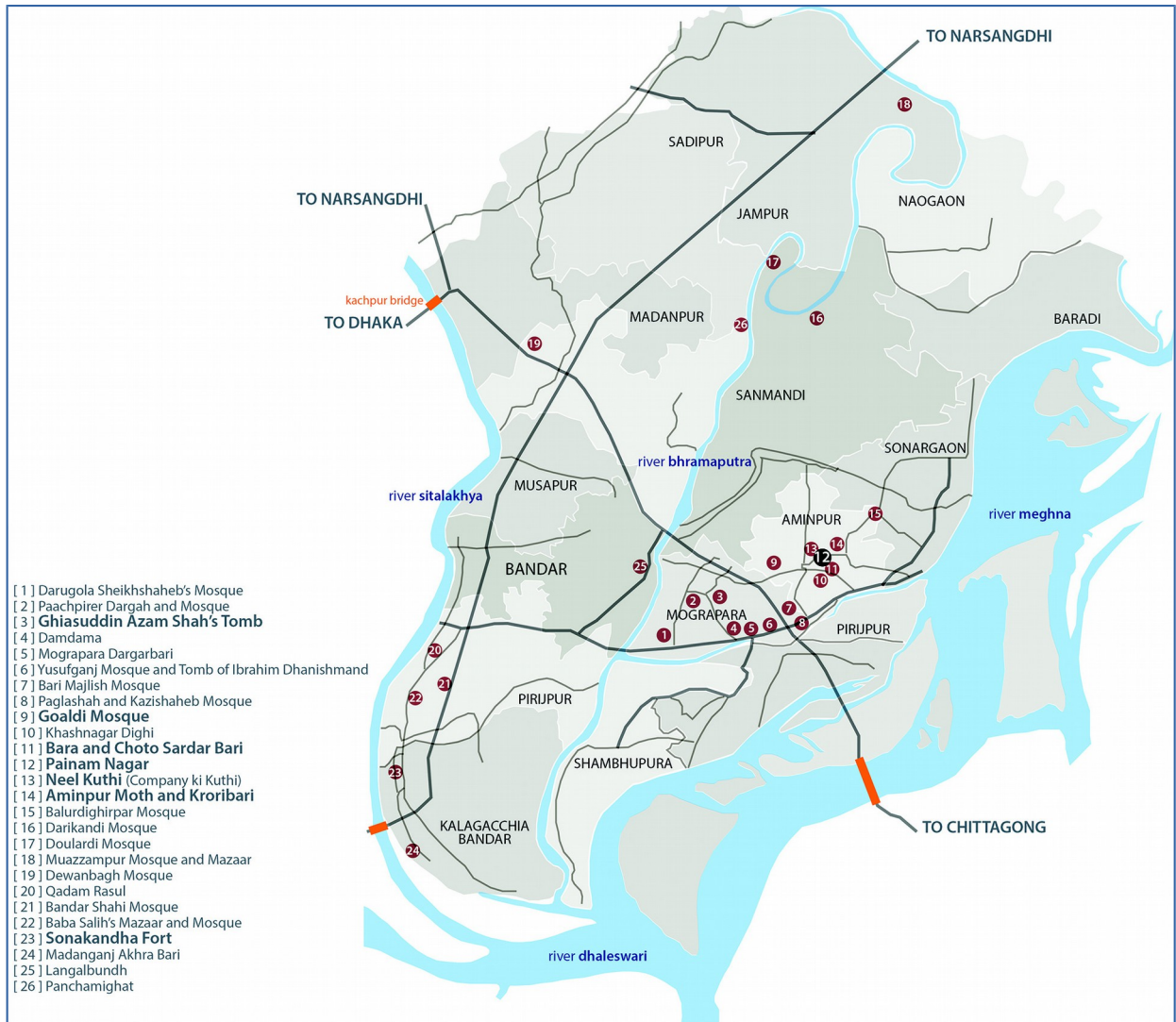


Fig 5f. Heritage Sites and possible tourist attractions around Painam Nagar



Fig 5g. More than one 'oil-drop' (i.e. heritage sites) around Painam Nagar

(from left to right) Sonargaon Folk Art Museum, Ghiasuddin Azam Shah's Tomb, Goaldi Mosque

## **RATIONALE AND INFLUENCE: PAINAM NAGAR - Stepping back +/- 12 years**

The question that emerged is that has Painam Nagar always been this disconnected from its surroundings, or has it always been this abandoned? Upon conversation with the locals and associated individuals it appears that Painam Nagar had been *adaptively re-used*, if not in the desired way, by locals when they illegally occupied Painam Nagar. Fig. 5h elaborates Painam Nagar's timeline as well as its period of occupation and uses. Fig. 5i (after summary) shows the uses that had been incorporated onto the Painam Street when it was being used by the locals.

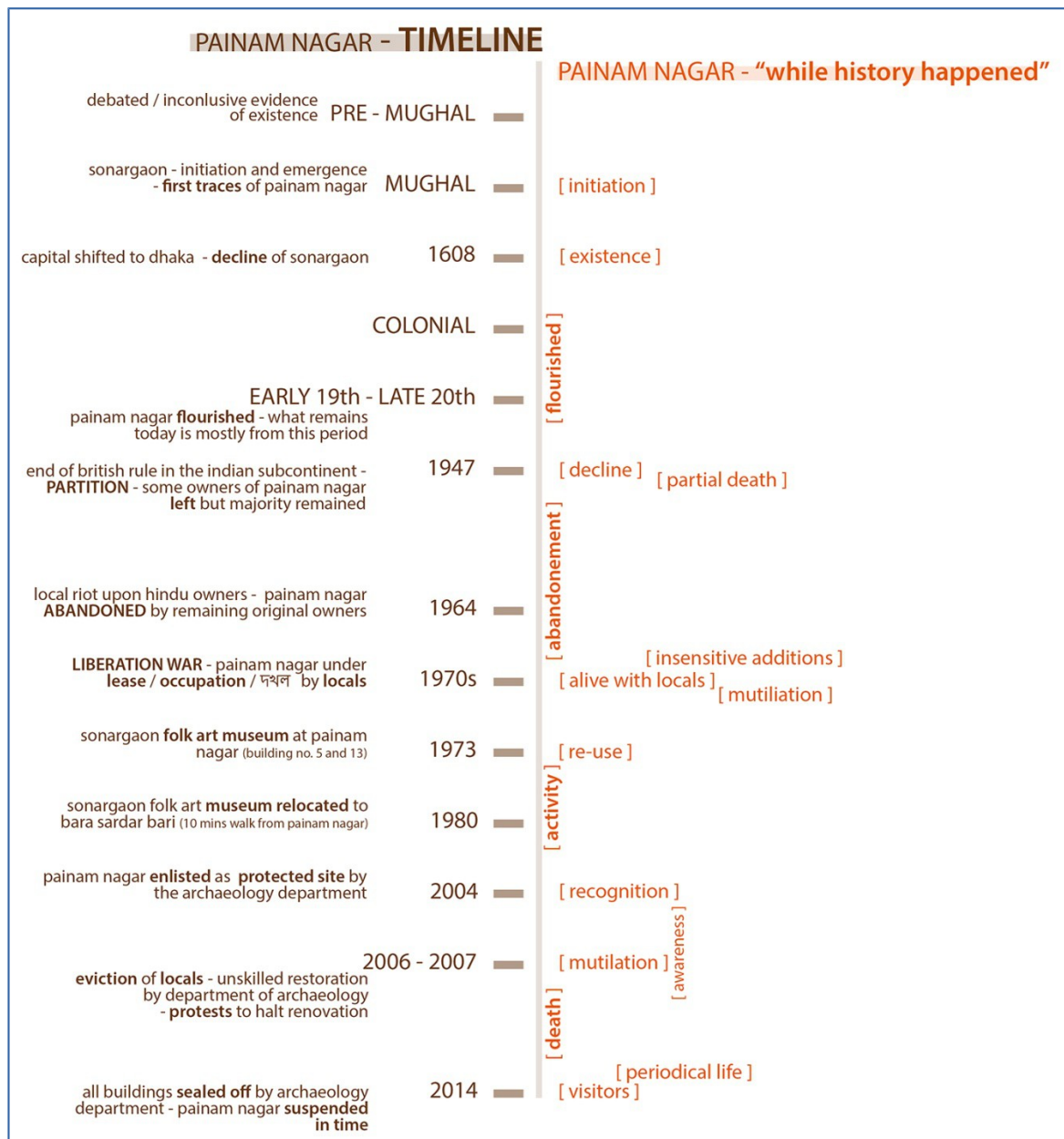


Fig 5h. Painam Nagar - timeline

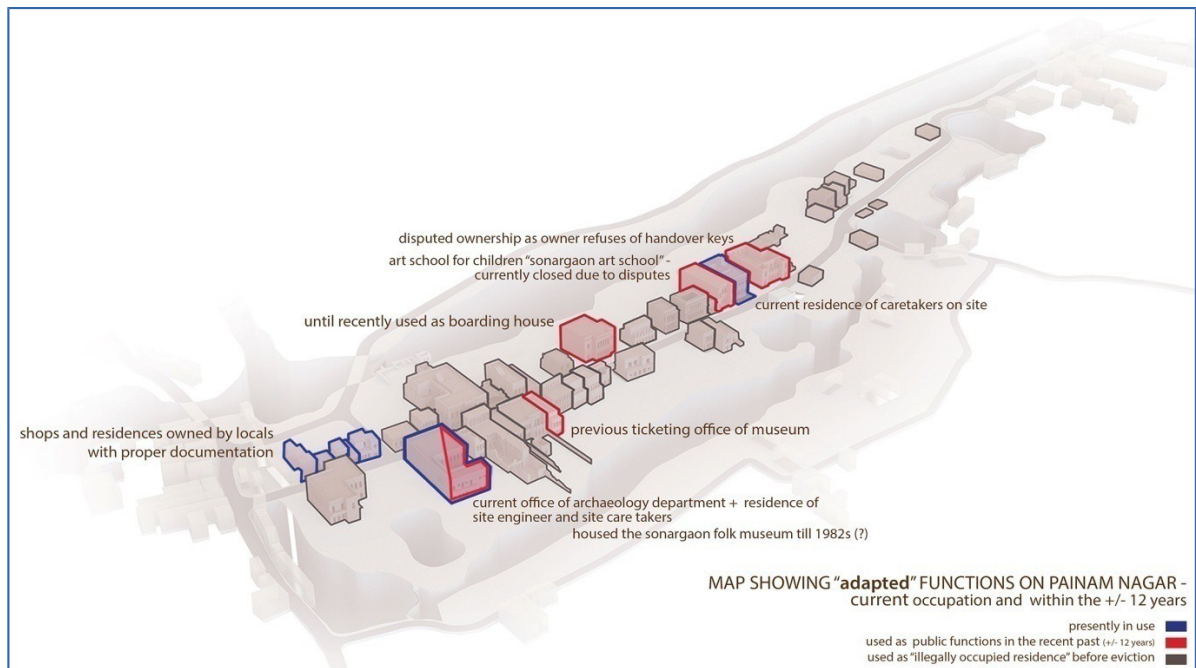


Fig 5i. Painam Nagar - adapted functions +/- 12 years

## **SUMMARY**

As the above survey findings shows, it can be summarized that Painam Nagar had been subjected to adaptive re-use naturally with time by the locals. Even though the outcome of such a re-use was not favorable and resulted in the mutilation and ill-use of the historically significant structures, none the less, Painam Nagar was *alive* then and was not an idle asset. Most importantly, it was an integrated part of the local community housing functions such as a boarding house (building no. 38), a children's art school (building no. 34), a museum (building no. 5) etc. (Refer to Fig 5i)

However, today it can be said that the eviction of the locals and abandonment, followed by the sealing off of the buildings by the Department of Archaeology in the name of preservation and protection of this site has resulted in it being 'partially dead' and having only periodic visitors.

Thus it can be deduced that the adaptive re-use of Painam Nagar is naturally desirable and its present day proposed functions should be derived from its present and recent-past users.

### **5.1.3 PAINAM NAGAR AS RESIDENCES AGAIN: WHY AND WHY NOT**

Before considering 'adaptive re-use', which by definition implies adapting to re-use a building for a function other than which it was built for, it may be pondered on why consider adaptive re-use in the first place, or why should the street front house in Painam Nagar not be restored for their original function, that is, be used once again as residences. Even though several arguments can be made on both perspectives, it may be summarized by the following points:

- The houses at Painam Nagar have no original or ancestral ownership by any individuals or groups. They were abandoned during partition and in the 1960s. The few locals who are interested to live here are only so simply because the houses would be 'free', and are not interested to buy them.
- If a family begins to stay in one of the houses, only they would be benefitted, and not the whole community or the locals in the area. However, proposing an economy generating function would benefit the whole community. Individually, they are simply residences. Collectively, they tell a story of a time by-gone.
- Since time changes the need of people, using them simply as residences would not focus on preserving the architectural and historic ambience of it. The users would modify the buildings, maybe even mutilating and changing them to suit their present needs. This is discussed in detail in Section 5.1.1. Example- Revoti Mohan Das House in Old Town, Dhaka.
- The fortunate location of Painam Nagar amidst several sites of historic importance only adds as a point of why Painam Nagar could serve as more by not being simply residences.

## **5.2 PROGRAMME DEVELOPMENT**

Based on the study, findings and ideas discussed in section 5.1, it can be said that Painam Nagar's should be adaptively re-used in a way such that it benefits the locals which surrounds Painam Nagar today and once was an integrated part of the Painam strip, and also the proposed functions should be equally beneficial to the visitors who are periodic users but just as important to the site. Also a governing body is required to be accommodated for the administrative and security purposes.

Thus the proposed functions can be broadly classified into the following 3 categories. They are as follows:

### **(A) RECREATIONAL FUNCTIONS**

- (A1) Museum + Exhibition Spaces
- (A2) Crafts + Folk Arts Center
- (A3) Boutique Guest Houses
- (A4) Restaurants + Cafes

### **(B) EDUCATIONAL FUNCTIONS**

- (B1) Cultural School for Children
- (B2) Library
- (B3) Archives
- (B4) Crafts Training Center

### **(C) ADMINISTRATION**

- (C1) Office for the Department of Archaeology
- (C2) General Administration
- (C3) Accommodations for Live-In Employees



### **5.3 SQUARE FEET AND AREA FOR PROGRAMME**

Due to the time constraint and duration of the studio, it was agreed upon to design in detail the adaptive re-use of only a set of buildings amongst the existing 52.

8 buildings (2 clusters) were chosen. Buildings 16-18-20-22 elaborates the adaptive re-use of an educational function (children's school + research center + library + archives ) and Buildings 7-9-11-13 elaborates the re-use of a recreational function (museum + exhibition space + souvenir shop ).

The details of the re-use and design development is fully elaborated in Chapter 7 of this document.

The following lists the square feet and area of the re-used building and extensions:

#### **5.2.1 BUILDING 16-18-20-22**

		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	
EXISTING AREA	GF	5371 sft	1399 sft	1199 sft	1191 sft	
	1st Floor	4166 sft	--	1199 sft	--	
	TOTAL	9537 sft	1399 sft	2398 sft	1191 sft	14 525 sft

PROPOSED ADDITION	GF	1725 sft
	1st Floor	3543 sft
	TOTAL	5268 sft

#### **FUNCTIONS AND AREA : BUILDING NO 16-18-20-22+EXTENSION**

BUILDING NO. / EXTENSION	FUNCTION	QUANTITY	TOTAL AREA (sft)
16 + 18 + 20 + 22 + Extension	Lobby	4	6400
16	Office	3	2300
16	Classroom	3	1600
16 + Extension	Washroom	6	600
16	Storage	3	800
20	Archive- Digital	2	1199
20	Archive- Documents	2	1199
22	General Reading Area	6	2240
	Library-Main Stack Area	1	2400
	Research Rooms	3	1840
	Meeting Rooms	1	800

	Computer Laboratory	1	800
--	---------------------	---	-----

### **5.2.2 BUILDING 7-9-11-13A+13B**

		<b>7</b>	<b>9</b>	<b>11</b>	<b>13A + 13B</b>	
EXISTING AREA	GF	644 sft	1451 sft	889 sft	1863 sft	
	1st Floor	--	1451 sft	889 sft	1863 sft	
	TOTAL	644 sft	2902 sft	1778 sft	3726 sft	9050 sft

PROPOSED ADDITION	GF	2533 sft
	1st Floor	1522 sft
	TOTAL	4055 sft

### **FUNCTIONS AND AREA : BUILDING NO 16-18-20-22+EXTENSION**

BUILDING NO. / EXTENSION	FUNCTION	QUANTITY	TOTAL AREA (sft)
Extension	Lobby	1	1522
9	Office	2	1200
9	Museum Workroom	--	1451
9	Washroom	4	600
9 + 13B	Storage	2	900
11 + 13A + 13B + Extension	Permanent Exhibition	3	4300
9 + Extension	Temporary Exhibition	3	1400
7	Souvenir Shop	1	2240
9	Temple (existing)	1	630
9	Kitchen for cafe	1	800

## **CHAPTER 6**

### **6.1 SURVEY, DOCUMENTATION AND STUDY**

The documentation and survey of Painam Nagar comprises a large proportion of this project. Little or no documented drawings of the individual buildings have been found, and the authors were unwilling to contribute their documentation to this paper. However, certain published papers provided references for the documentation, the most notable one being '*Twenty-Five Buildings - Frozen Museum of Painam Nagar*' by Z.U. Shaikh and M. Rahman (pp 280-322) in 'Old but New - New but Old: Architectural Heritage Conservation' by M. Rahman (UNESCO, 2009).

### **6.2 APPROACH AND METHODS OF DOCUMENTATION**

For the convenience, scale, time-frame and requirement of the project, 14 buildings were chosen based on their versatility, uniqueness, layout, time period of construction and their adjoining spaces. They are buildings numbered as 1, 3, 5, 7, 9, 11, 13a, 13b, 16, 24, 31, 33 and 38 on the survey map. (Fig. 6a). Also, all buildings were 3 dimensionally modeled.

The buildings were documented using traditional survey methods of sketching the plans and elevations hands-on, and then measuring and inserting measurements onto the drawings. They were later drafted, and cross checked for errors and details. Attached are the documentation of the 14 buildings surveyed.

Acknowledgements for documentation: Site Engineer at Painam Nagar Md. Rafiqul Islam and the five "caretakers" on-site, Samiur Rahman Turjo, Imtiaz Hossain, Asif Iqbal Aontu, Nazia Rahman, Samiur Rahman Bhuiyan, Faisal Bin Afzal Ash Shafi, Sohana Alim, Ronald E. Saxton, Daniella Sunhee Jung, Adnan M.S. Fakir and Nurul Islam Yamlikha.

References for documentation: '*Twenty-Five Buildings - Frozen Museum of Painam Nagar*' by Z.U. Shaikh and M. Rahman (pp 280-322) in 'Old but New - New but Old: Architectural Heritage Conservation' by M. Rahman (UNESCO, 2009)

*'Regenerating the life of Panam Nagar'* - Undergraduate Thesis 2010, Bangladesh University of Technology (BUET) by Monon-Bin-Yunus.

For building no.38, '*Kashinath Bhaban: a unique building of Panam Nagar bears testimony to colonial architecture in Bengal*' by Shirajom Monira Khondker & Mehnaz Tabassum, published in International Journal of Civil Engineering (IJCE) ISSN 2278-9987 Vol. 2, Issue 3, July 2013, 97-108

**LIST OF FOOTPRINT OF HERITAGE BUILDINGS ON SITE****NOTE:** Please refer to map attached on the next page for the marked Building Nos.

<b>BUILDING NO.</b>	<b>FOOTPRINT AREA</b>
BLDG NO. 1 and 3	3280 SFT
BLDG NO. 2	405 SFT
BLDG NO. 4	576 SFT
BLDG NO. 5	4837 SFT
BLDG NO. 6	461 SFT
BLDG NO. 7	452 SFT
BLDG NO. 8	201 SFT
BLDG NO. 9	2242 SFT
BLDG NO. 10	--
BLDG NO. 11	792 SFT
BLDG NO. 12	1224 SFT
BLDG NO. 13	742 SFT
BLDG NO. 14	831 SFT
BLDG NO. 15	1592 SFT
BLDG NO. 16	5962 SFT
BLDG NO. 17	--
BLDG NO. 18	788 SFT
BLDG NO. 19	871 SFT
BLDG NO. 20 and 22	1633 SFT
BLDG NO. 21	397 SFT
BLDG NO. 23	541 SFT
BLDG NO. 24	847 SFT
BLDG NO. 25	--
BLDG NO. 26	1790 SFT
BLDG NO. 27	194 SFT
BLDG NO. 28	1268 SFT
BLDG NO. 29	185 SFT
BLDG NO. 30	618 SFT
BLDG NO. 31 and 33	2052 SFT
BLDG NO. 32 and 34	1536 SFT
BLDG NO. 35	296 SFT
BLDG NO. 36	1916 SFT
BLDG NO. 37	487 SFT
BLDG NO. 38	2446 SFT
BLDG NO. 39	--
BLDG NO. 40	1827 SFT
BLDG NO. 41	346 SFT
BLDG NO. 42	389 SFT
BLDG NO. 43	843 SFT
BLDG NO. 44	614 SFT
BLDG NO. 45	1089 SFT
BLDG NO. 46	1580 SFT
BLDG NO. 47	919 SFT
BLDG NO. 48	696 SFT
	<b>TOTAL 43 988 SFT</b>

**LIST OF AREAS OF DOCUMENTED BUILDINGS**

	<b>BUILDING NO.</b>	<b>FLOOR AREAS</b>	<b>TOTAL USABLE AREA</b>
01.	<b>BLDG NO. 1 and 3</b>	3280 SFT (GF) + 2726 SFT (1ST FL)	6006 SFT
02.	<b>BLDG NO. 5</b>	5374 SFT x 2 floors	10 748 SFT
03.	<b>BLDG NO. 7-9-11-13a-13b</b>	4761 SFT x 2 floors	9522 SFT
04.	<b>BLDG NO. 16</b>	5962 SFT (GF) + 5421 SFT (1ST FL)	11 383 SFT
05.	<b>BLDG NO. 24</b>	847 SFT x 2 floors	1694 SFT
06.	<b>BLDG NO. 31 and 33</b>	2052 SFT (GF) + 1326 SFT (1ST FL)	3378 SFT
07.	<b>BLDG NO. 38</b>	2446 SFT x 2 floors	4892 SFT
			<b>TOTAL 47 623 SFT</b>

The following pages give the detailed drawings of the 11 documented buildings. For the convenience of the project, the 11 buildings have been put into 7 sets. For further reference, please see SITE PLAN (2014) attached in Chapter 2.

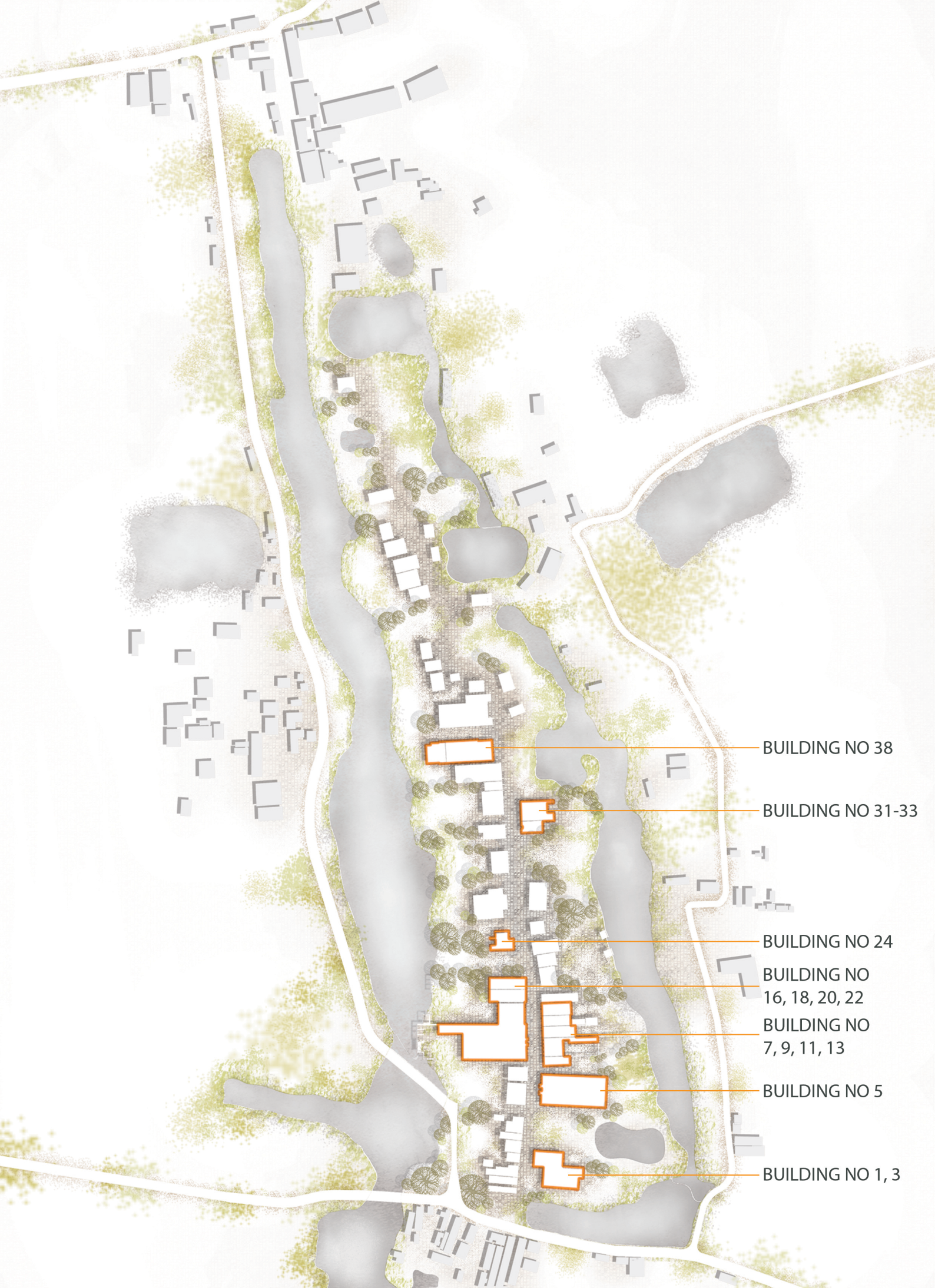


### 6.3 DOCUMENTATION: PLANS, ELEVATIONS AND 3-DIMENSIONAL MODELING



Fig 6a. Painam Nagar- buildings documented





BUILDING NO 38

BUILDING NO 31-33

BUILDING NO 24

BUILDING NO  
16, 18, 20, 22

BUILDING NO  
7, 9, 11, 13

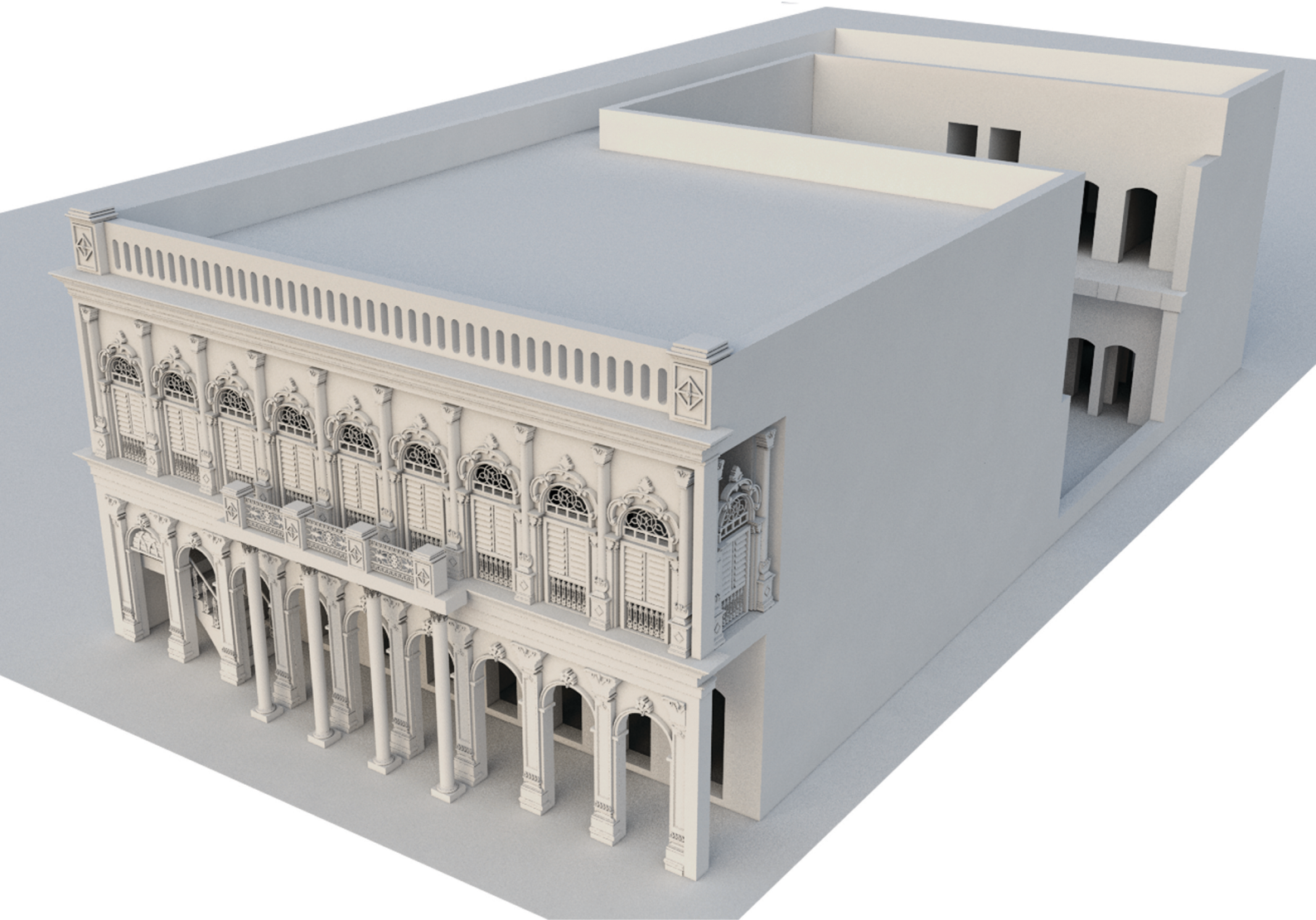
BUILDING NO 5

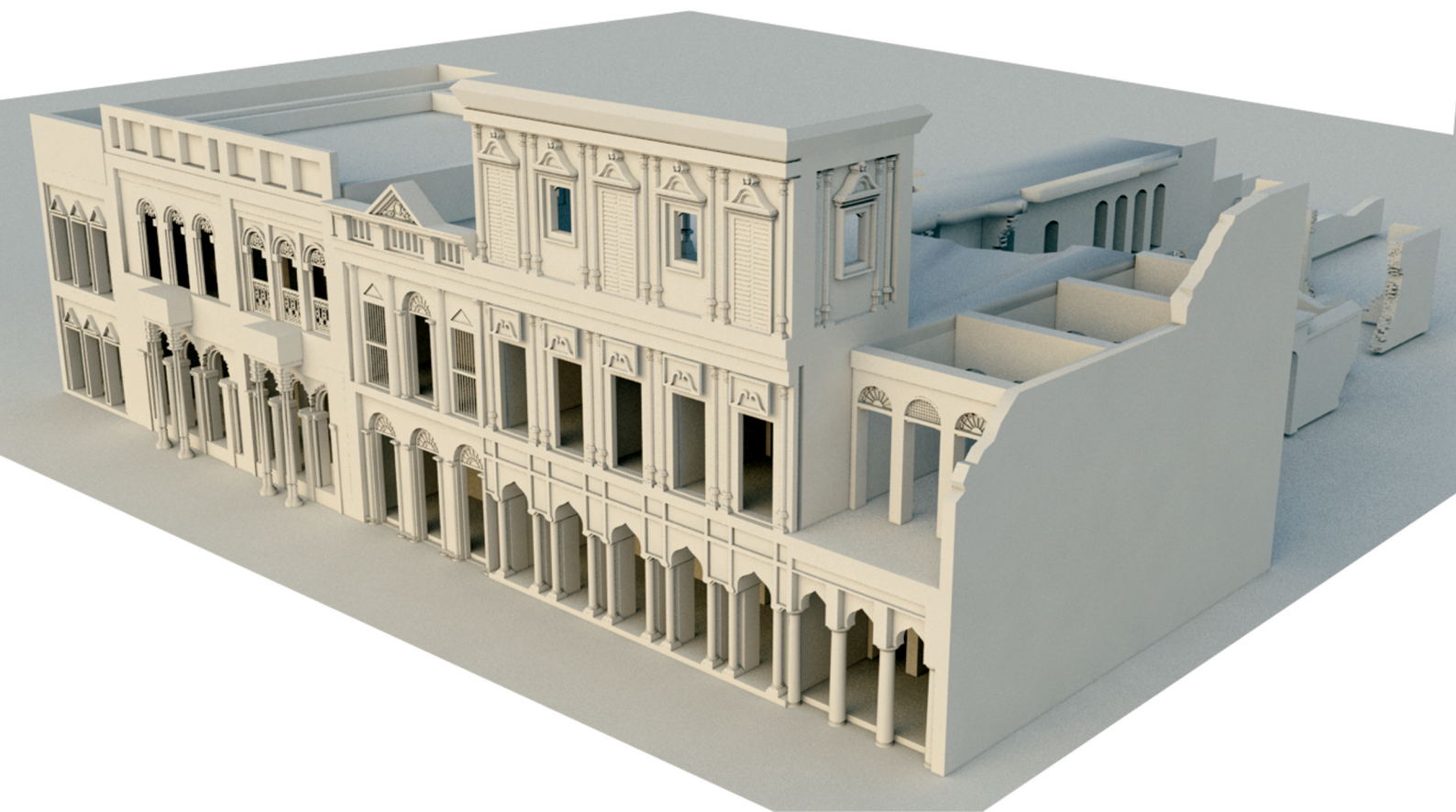
BUILDING NO 1, 3





BUILDING NO. 03 & 01





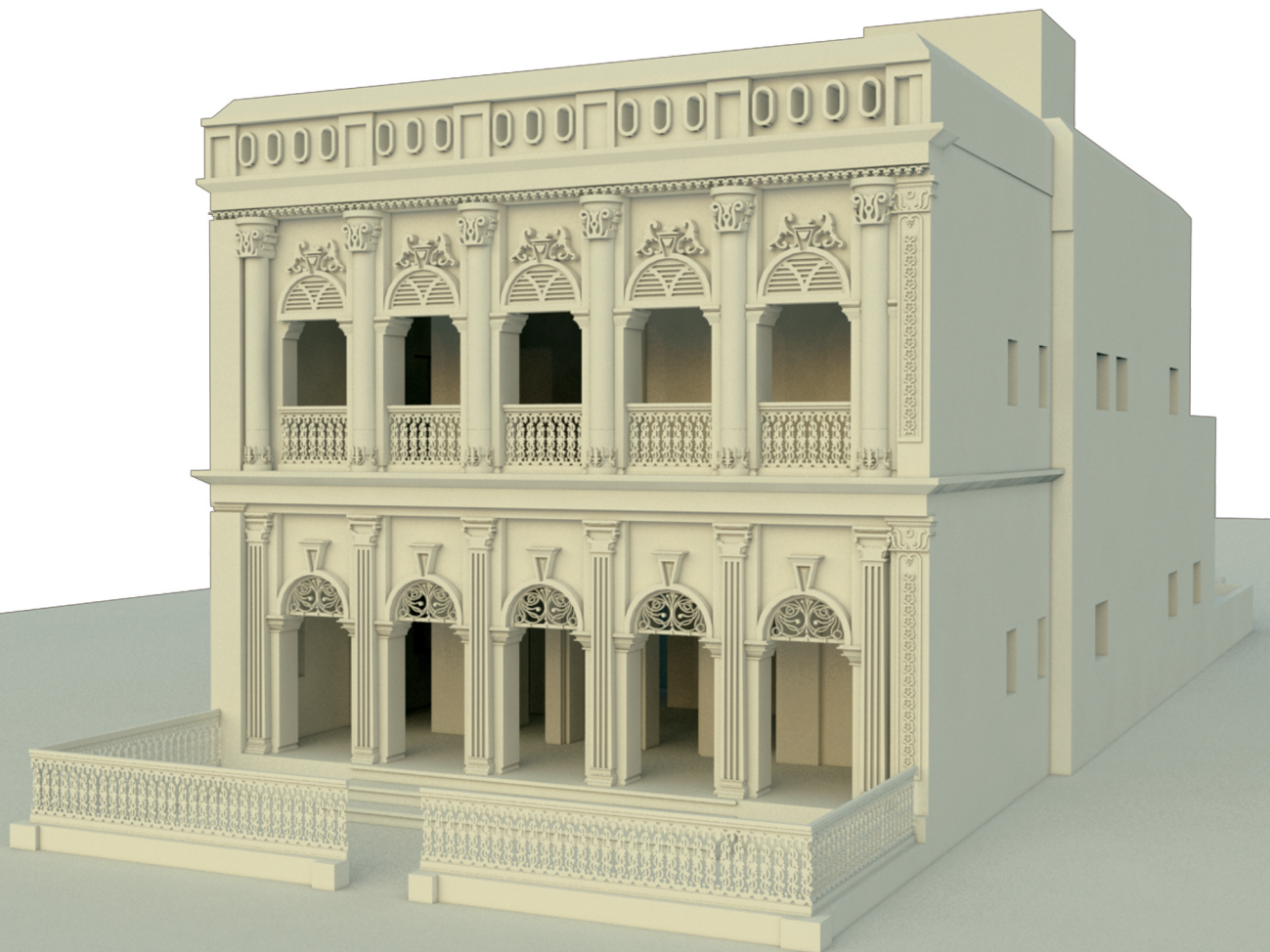












## 6.4 SURVEY, STUDY AND CLASSIFICATION OF BUILDINGS:

### 6.4.1 CLASSIFICATION AND IDENTIFICATION:

The fifty-two buildings of Painam Nagar have been thoroughly studied to be classified based on the following categories:

- (1) Time-period of construction (mughal / conglomerate / early colonial / late colonial / unidentifiable)
- (2) Present-day building condition (well maintained-minor defects / renovated - beyond recognition / roof collapsed -ruins)
- (3) Present day usage / occupation (in use / not in use - sealed off / disputed)

Fig 6a elaborates the classifications along with the building numbers.

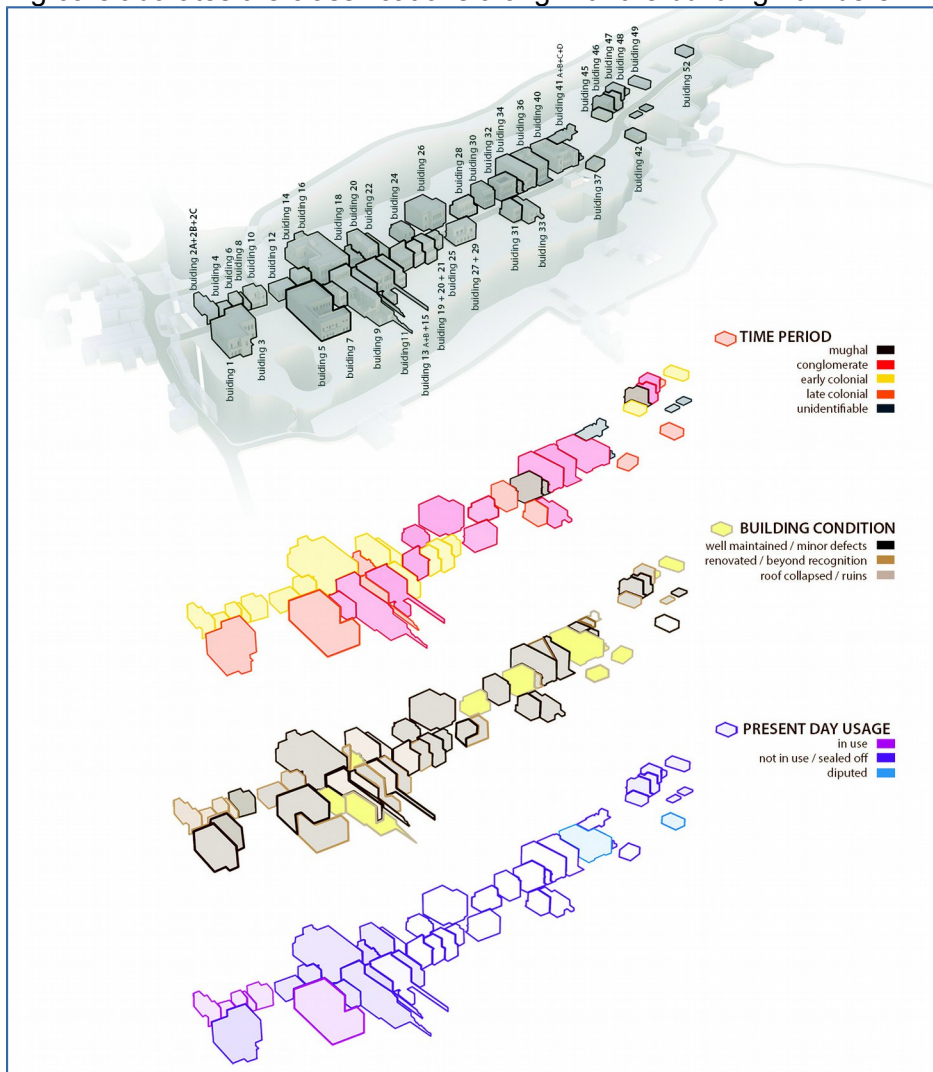


Fig 6b. Painam Nagar- buildings classification and identification



### 6.4.2 STUDY OF THE BUILDING SPACES AND LAYOUT

The buildings have also been classified according to their space layout for a better understanding of the spaces and how they functioned then such they may be adapted for now.

They have been classified as follows:

- (1) Focused Space Type
- (2) Consolidated Space Type
- (3) Single Space/Unit Room Type

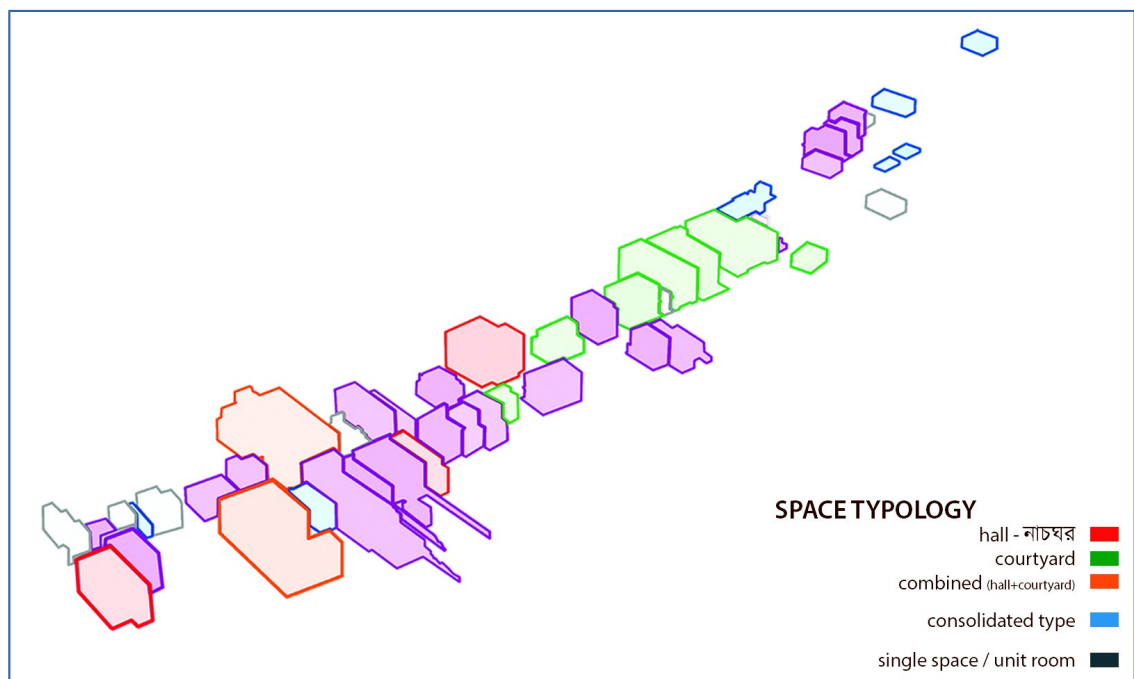


Fig 6c. Painam Nagar- Space Typology of Buildings



Fig 6d. Space Typology of Buildings - photographs

(1) Focused Space Type: central space (usually ornamented) that acts as the focal point from where the layout of the remaining house originates

- hall / "naacghor" (central space for dances/performances)
- courtyard
- combined (hall + courtyard)



Fig 6e. Space Typology of Buildings - Focused Space Type

(2) Consolidated Space Type: sets of irregular arrangement of rooms connected by narrow central / side passages

- Type 1
- Type 2

(3) Single Space / Unit Room Type: single rooms or sets of rooms placed one after the other.

- Type 1
- Type 2

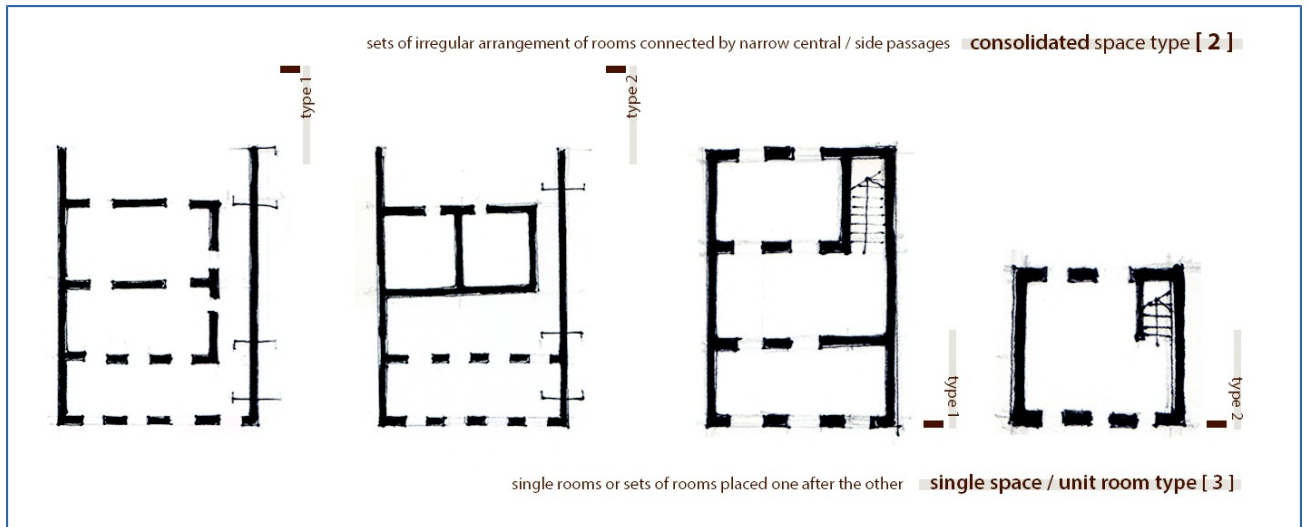


Fig 6f. Space Typology of Buildings - Consolidated Space Type and Single Space / Unit Room Type

### **6.4.3 STUDY OF THE PROPAGATION OF SPACE**

Also, based on the study and survey, assumptions were attempted of how the spaces functioned then. Fig 6g elaborates the analysis.

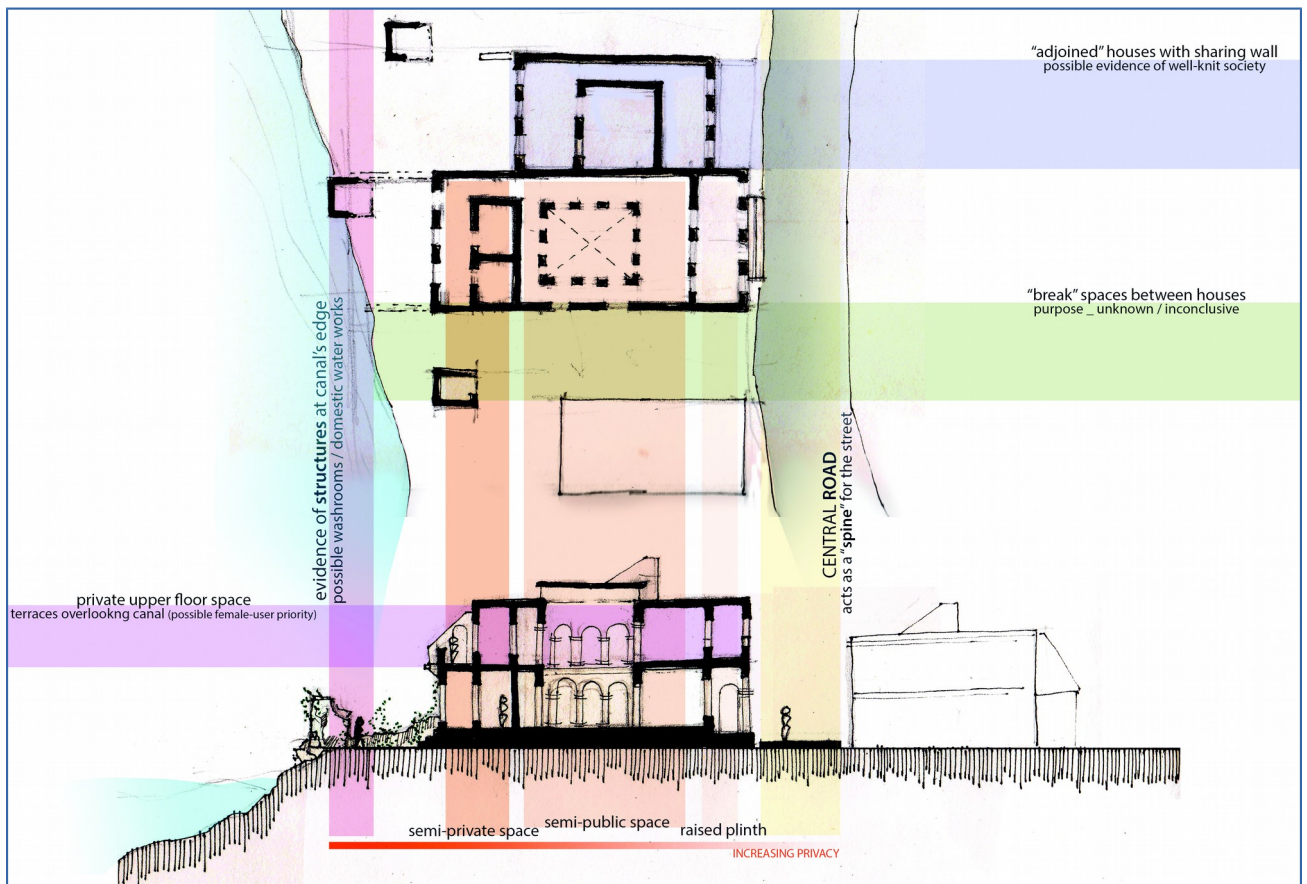


Fig 6g. Space Analysis of Buildings - The propagation of space

## CHAPTER 7

### 7.0 DESIGN DEVELOPMENT AND CONCEPTUALIZATION

#### 7.1 INTRODUCTION

The key idea of this project remained to propose a re-use of the now abandoned buildings of Painam Nagar, keeping in mind their architectural and historical importance, and also considering with equal importance the present socio-economic and urban setting amidst which Painam Nagar stands today. However, in order to support a re-used function in a set of buildings which were constructed purely to be used as residences, certain modifications and additions may be required. This chapter elaborates the process through which the re-use has been suggested and the necessary additions and modifications made to support the functions.

However, there remains intangible factors which influence such a site. There are essences can only be felt, but not seen; factors which are remembered amidst others which are forgotten. The concept of this project was developed from such an idea of how we associate our memory with a place, and how well do we keep Painam Nagar in our memory. These ideas are discussed elaborately in section 7.2 of this document.

#### Note (1):

Due to the time constraint and duration of the studio, it was agreed upon to design in detail the adaptive re-use of only a set of buildings amongst the existing 52.

**8 buildings** (2 clusters) were chosen. **Buildings 16-18-20-22** elaborates the adaptive re-use of an educational function (children's school + research center + library + archives ) and **Buildings 7-9-11-13** elaborates the re-use of a recreational function (museum + exhibition space + souvenir shop ).

#### Note (2):

The extensive study and documentation of the residential buildings of Painam Nagar are discussed in detail in Chapter 6 of this document.

## **7.2 CONCEPTUALIZATION: How well does Painam Nagar remain within our memory?**

As it appears today, the majority of the buildings in Painam Nagar are sealed off by the Department of Archaeology in the name of preservation. Thus, today, to a visitor, Painam Nagar has simply become *a walk down a street with a set of heritage buildings' street front facades*. But is that all that Painam Nagar really is? Or is it capable of being more?

When the question of "how well do we remember Painam Nagar today?" is posed to any random visitor, it appears that they generally possess a 15-minute memory of only a set of street front facades. This memory is also rather temporary, with people being unaware of what Painam Nagar really is. It is almost as if the memory is 2-dimensional.

By proposing functional purposes to these buildings, an opportunity is created for people to associate greater memories with Painam Nagar and spend more time here, thus remembering it better. Also, the buildings then cease to become 'idle assets' and have a purpose again and for the dying spaces to become alive again (see Fig 7b and 7c). It is an attempt to convert a 2-dimensional memory of a set of street front facades to a 3-dimensional memory of activities. Fig 7a elaborates the idea further.

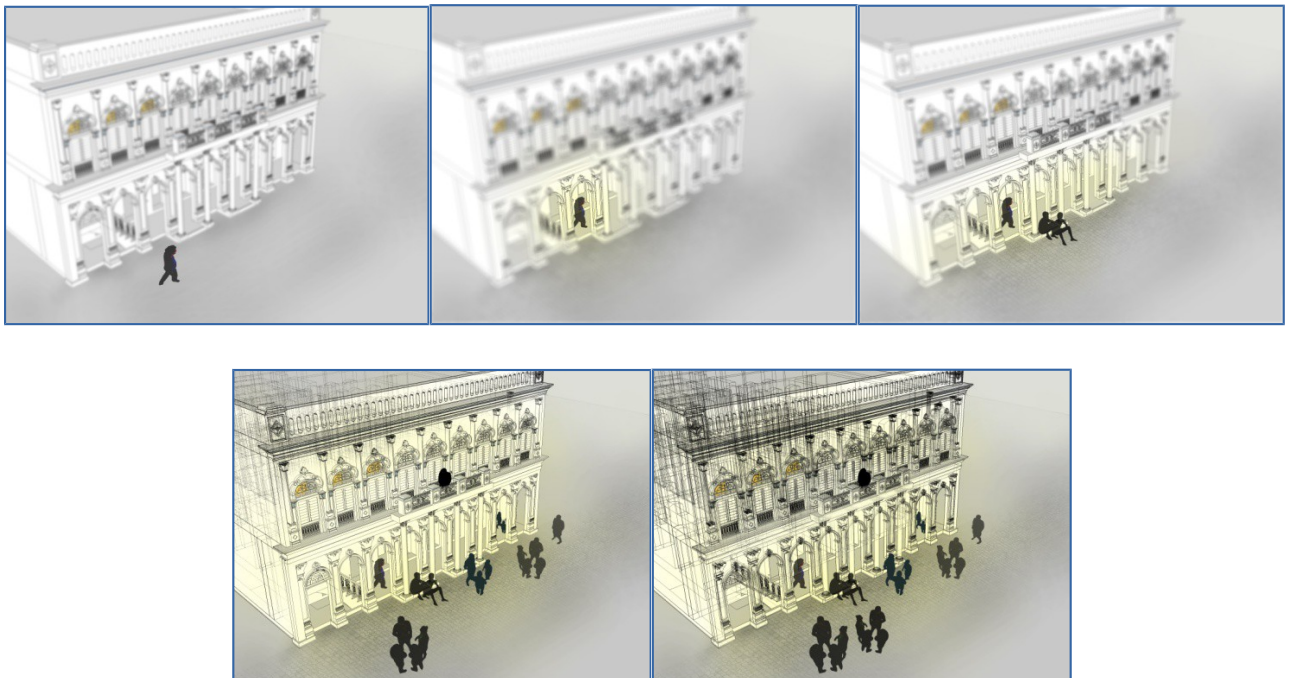


Fig 7a. Painam Nagar- by associating activities with the spaces, the buildings might be more well-remembered



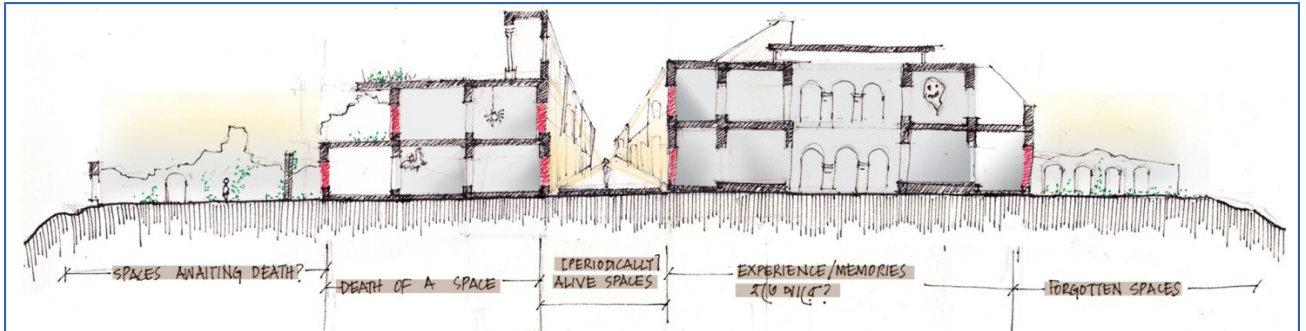


Fig 7b. Painam Nagar- by present condition of buildings

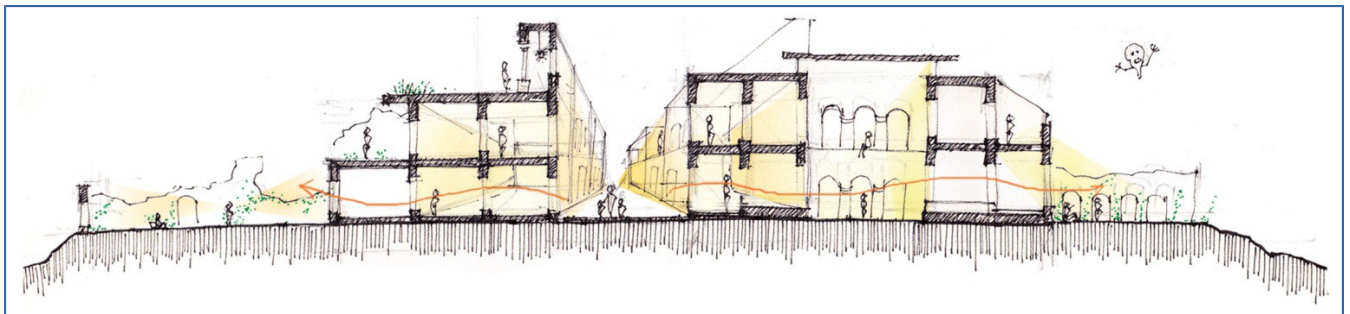


Fig 7c. Painam Nagar- possibilities to create greater memories and buildings ceasing to be idle assets

## 7.3 DESIGN DEVELOPMENT:

### 7.3.1 THE CONCEPTUAL MASTERPLAN

The buildings of Painam Nagar were conceptually assigned to the various functions proposed. the factors considered were the propagation from the more public functions (example: museum, school, library) at the beginning of the street to the more private ones (example: boutique guest houses, residences of live-in employees) towards the center of the street. Also, it was taken into consideration if the adapted functions would be suitable to the building assigned for it. Fig. 7c shows the conceptual zoning of the master plan.



Fig 7d. Painam Nagar- proposal for conceptual master plan

### **7.3.2 THE DETAILED DESIGN: BUILDINGS 16-18-20-22 AND BUILDINGS 7-9-11-13A+13B**

**8 buildings** (2 clusters) were chosen. **Buildings 16-18-20-22** elaborates the adaptive re-use of an educational function (children's school + research center + library + archives ) and **Buildings 7-9-11-13** elaborates the re-use of a recreational functions (museum + exhibition space + souvenir shop ). Both cluster of buildings required additions and modifications to be made.

The notion was to incorporate the majority of the functions onto the existing buildings with a minimum intervention approach. However, certain additions were necessary.

It can be noted here that the extensions were made keeping in mind that the present time and context, such that the extensions may become an expression of the time of when it has been constructed.

The design considerations for the additions / extensions can be summarized as the following:

- (1) The extensions to the existing buildings should reflect its own time.
- (2) The extensions should be sensitive and must follow the general character of the site in terms of form and space creation.
- (3) Only what is necessary should be added.
- (4) The material proposed for the additions are wooden and glass panels mounted on a steel structure such that they can be pre-fabricated and easily assembled and dismantled. The idea was that the extensions itself should be 'adaptive' to accommodate any future needs.

Fig 7e shows the addition principles. Fig 7f elaborates the functional distributions.

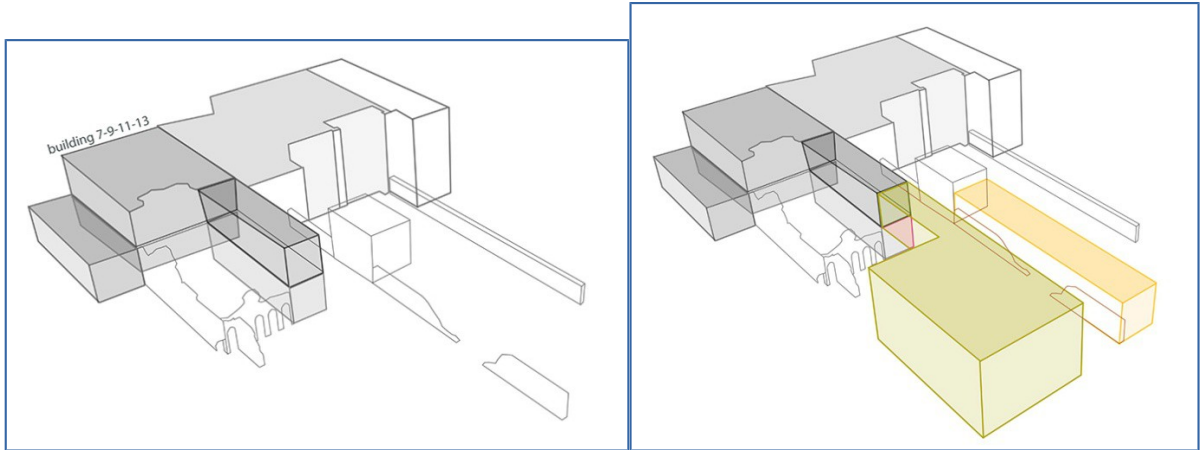


Fig. 7e(1) Building 7-9-11-13A+13B Addition Principles

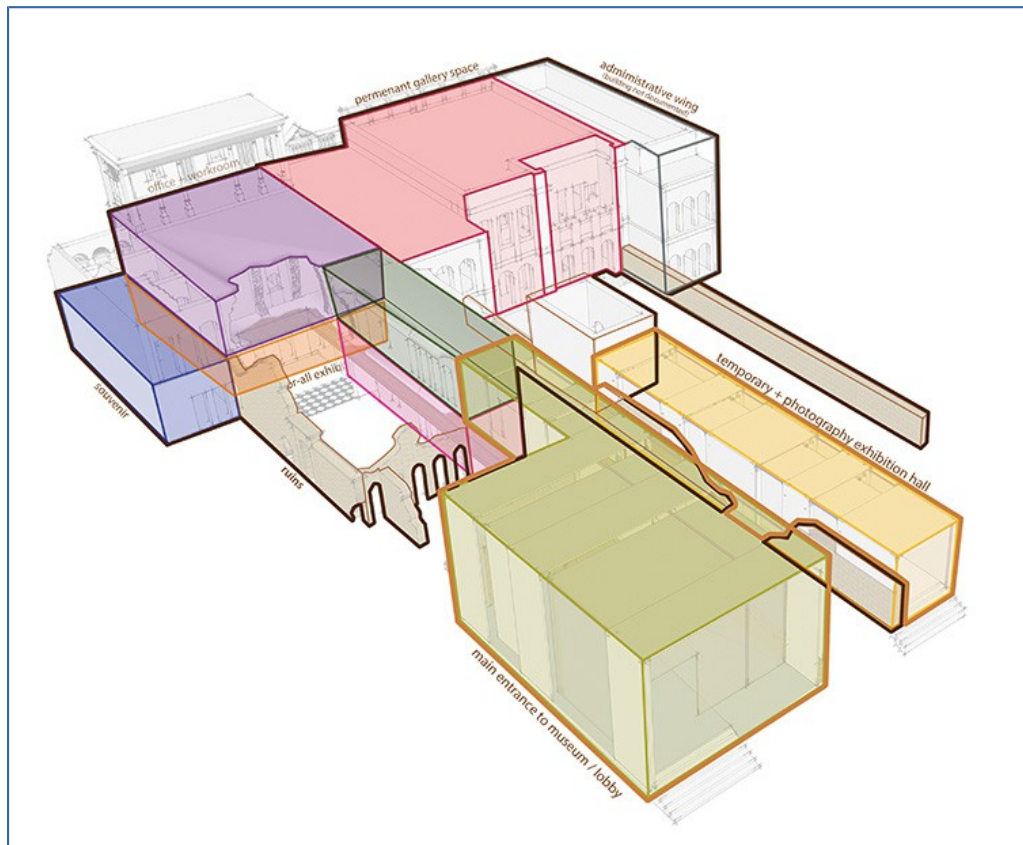


Fig. 7f(1) Building 7-9-11-13A+13B Functional Distribution



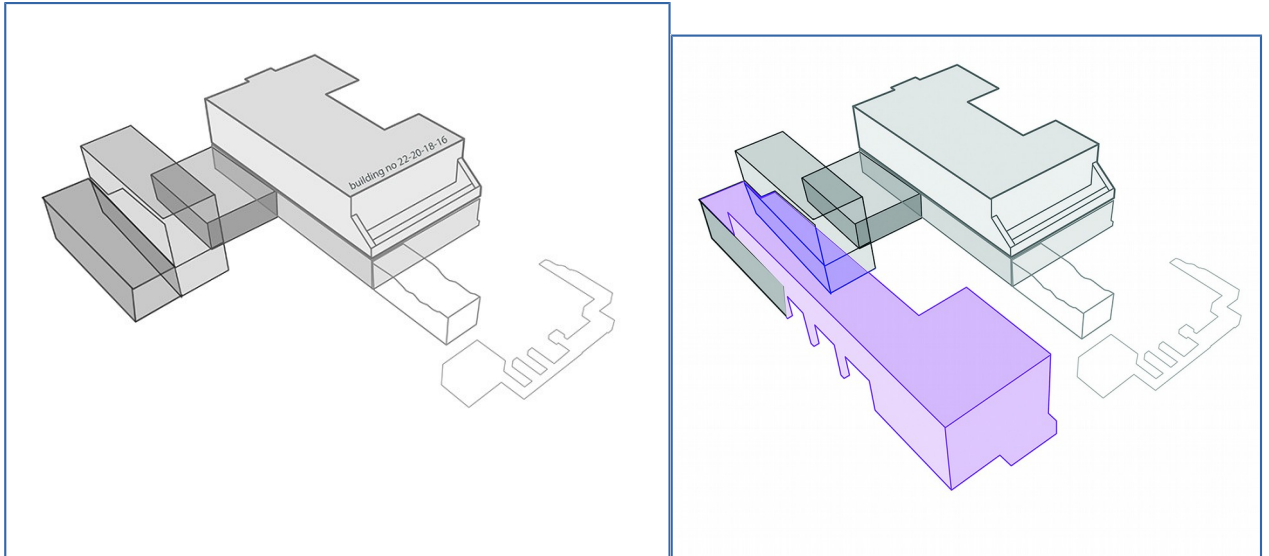


Fig. 7e(2) Building 16-18-20-22 Addition Principles

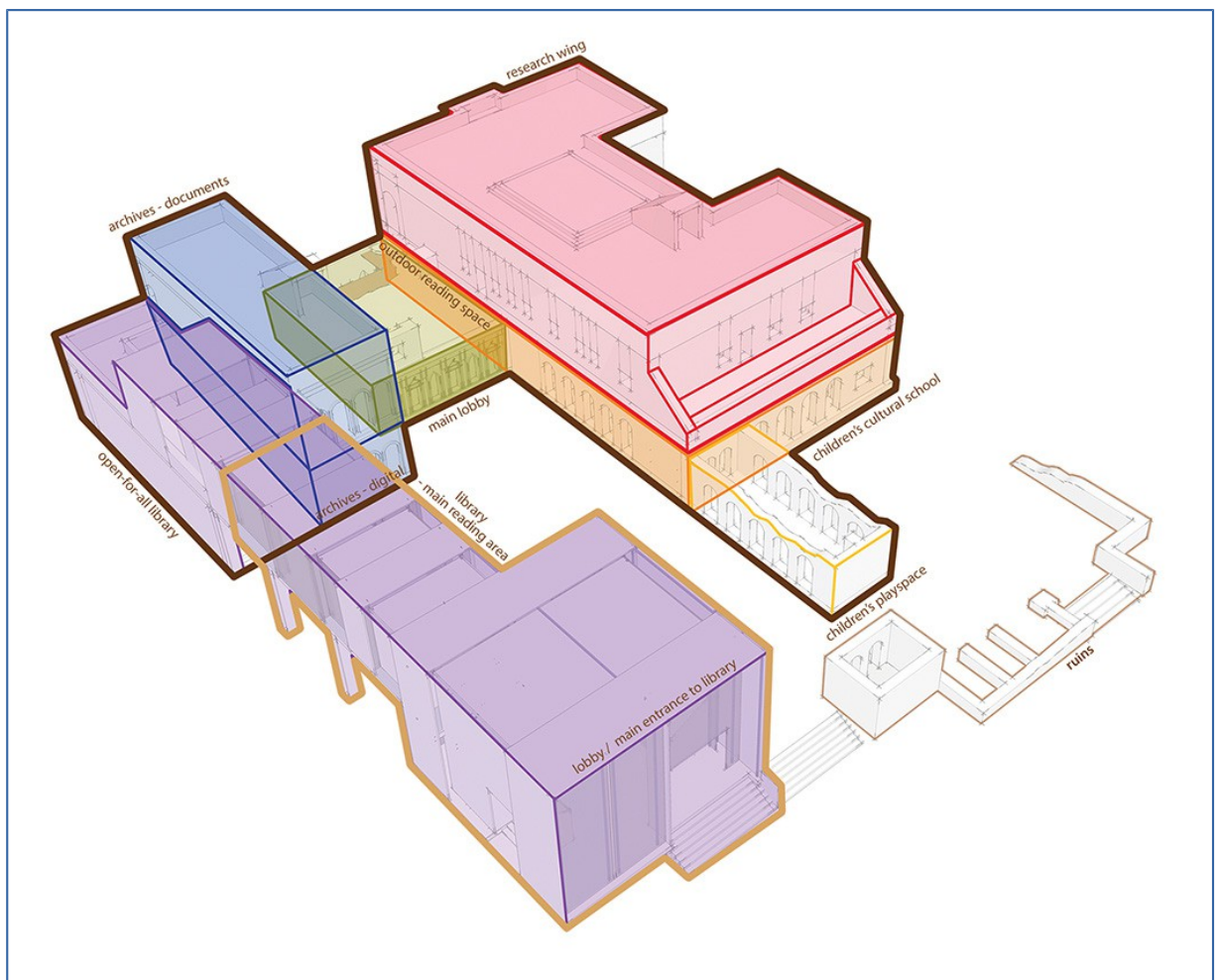


Fig. 7f(2) Building 16-18-20-22 Functional Distribution







Fig. 7g Section aa' and Section bb'- Building 16-18-20-22 and Building 7-9-11-13A+13B

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